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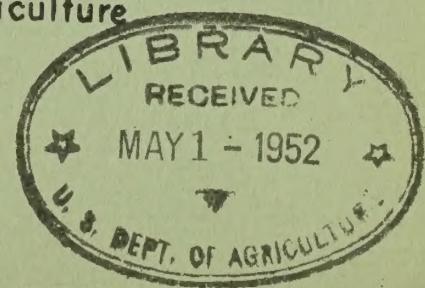
WORKBOOK for Extension Nutritionists



Compiled by

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Extension Service
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Washington 25, D. C.

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A WORKBOOK FOR EXTENSION NUTRITIONISTS 1/

Evelyn L. Blanchard, Extension Nutritionist

THE EXTENSION NUTRITION WORKSHOP

This Workbook brings out the highlights of the First National Extension Nutrition Workshop, which was conducted by Evelyn L. Blanchard, Federal Extension Nutritionist. The materials presented by the consultants and the discussions of the nutrition specialists, have been combined. Additional material has been added where necessary to make the Workbook more useful.

The practical suggestions brought out by the group may help you solve some of your problems, whether or not you were able to attend the National Nutrition Workshop.

Many points of view were presented at the workshop. Everyone took an active part in the committee work and discussion. This Workbook is based on the wide experience of the consultants, the nutrition specialists, and agents attending the course. The workshop differed in certain respects from a university course in that it was organized around the problems which the participants brought.

The democratic way in which the workshop was conducted, enabled the group to participate in working out answers to problems.

Acknowledgement

Special credit is due Janina M. Czajkowski, nutritionist of the Connecticut Extension Service, a member of the workshop, for the invaluable assistance she gave in compiling and adapting material for this Workbook.

1/ Based on the Proceedings of the National Extension Nutrition Workshop, University of Arkansas, July 30 to August 17, 1951.

Resource Consultants

Name and address Topic

Bushrod W. Allin, Bureau of Agricultural Economics,
U. S. Department of Agriculture, Washington 25, D. C. The Food Dollar

Marjorie B. Arbour, editor, Louisiana State University, Baton Rouge. News Writing

Mary Louise Collings, Division of Field Studies and Training, Extension Service, U. S. Department of Agriculture, Washington 25, D. C. Evaluation

Helen Craner, Corn Products Refining Co., New York. Demonstration Technique for TV

Beulah V. Gillaspie, Head, Department of Home Economics, University of Arkansas, Fayetteville. . . Southern Regional Food Survey

Marjorie Grant, U. S. Public Health Service, Washington 25, D. C. Weight Control by Group Therapy

Hazel C. Jordan, State home demonstration agent, Little Rock. Cooperation

Dr. Vera MacNair, associate professor of home economics, University of Arkansas, Fayetteville. . . Views of an Observer

Modane Marchbanks, J. Walter Thompson Co., New York. Planning and Preparing for Writing

Nancy Masterman, Crosley Division AVCO Manufacturing Corporation, Cincinnati. Teaching Freezing

R. W. Roskelley, Head, Department of Sociology, Utah State Agricultural College, Logan. Attitudes as Related to Food Habits

William M. Smith, Professor in family relationships, Pennsylvania State College, State College. Use of Group Methods

E. Neige Todhunter, Professor of Nutrition, University of Alabama, University. What's New in Nutrition

Zella Weyant, Kerr Glass Manufacturing Co., Sand Springs, Okla. Teaching Canning

Other Participants

The following persons participated in the workshop:

<u>Name</u>	<u>Position</u>	<u>State</u>
Anderson, Myrtle D.	Agent	Louisiana
Arnett, Cleo Mae	Specialist	Florida
Barker, Etta Louise	Agent	Tennessee
Boyd, Nellie Clyde	Specialist	Georgia
Boyette, Gladys F.	Specialist	Mississippi
Butts, Ruby	Agent	Texas
Czajkowski, Janina M.	Specialist	Connecticut
Daniels, Mildred	Specialist	South Dakota
DePriest, M. Marie	Agent	Tennessee
Diedricksen, Ethel	Specialist	Nebraska
Dohogne, Hermina	Specialist	Oklahoma
Felder, Anna P.	Specialist	Mississippi
Flory, Josephine Frances	Specialist	Missouri
Graham, Jewel	Specialist	Iowa
Jolley, Margaret	Specialist	Louisiana
Newman, Louise Brown	Agent	Texas
Petty, Leila Savannah	Agent	Texas
Randolph, Blanche	Specialist	Arkansas
Reasonover, Frances L.	Specialist	Texas
Rowe, Ina B.	Specialist	Minnesota
Schmitt, Gertrude		Germany
Sides, Leola Cox	Agent	Texas
Smith, Evangeline J.	Specialist	Wyoming
Terrel, Willie Lou	Agent	Texas
Thompson, Mary L.	Specialist	Virginia
Underwood, Clara	Agent	Missouri
Vogt, Bessie L.	Agent	Texas
Welhausen, Doris Jane	Agent	Texas

Each member selected at least one problem of special interest to her. Those interested in common problems worked together as a committee. The reports of many of these committees are incorporated in this Workbook with material presented by the resource consultants.

Problems Discussed

The topics selected for committee work were:

Wise use of the food dollar.	Nutrition of older people and preschool children.
Writing bulletins.	Visual aids.
Method demonstrations.	Method of training agents.
Evaluation.	Method of training leaders.
Cooperation with other agencies.	Our part in civilian defense.
Conducting group meetings.	Food for entertainment.

A Philosophy

To develop democratic thinking you need to use democratic methods. Your job as an extension worker is to help people help themselves. You need to give them the facts on both sides of a question so that they can think through the problem and make their own decision. A well-conducted discussion is one method you can use to stimulate people to think.

Extension workers are often inclined to tell people what to do rather than motivate them to improve their attitudes and habits. You know that simply telling people what they should eat does not change their food habits. You must stimulate people to want to eat a well-balanced diet to the extent that they will actually follow this diet. None of us wants to be told what we should do yet so often we forget this in teaching others.

When working with various cultural groups you need to consider their customs and food preferences. Never try to change food habits completely. Improving the diet a step at a time may prove more successful. Remember too that the information you are giving out may be the best at present but may not continue to be so as more research is done and more facts are developed. Many a nutritionist has to admit that making Johnnie eat his spinach was a poor practice.

Attitudes toward food reflect attitudes toward life. Children who are unhappy and insecure bring their attitudes to the table. The relationship of food to our emotions is receiving much attention and investigation at the present.

Extension workers sometimes give too much emphasis to the subject matter they are teaching and not nearly enough to the human beings they teach. The methods we select for teaching foods and nutrition are of prime importance, if we are to develop people. Lecturing to a group or demonstrating a skill is not enough. This does not develop the person nor does it usually lead to the action desired.

Research has shown that group discussion leading to a decision produces more action than does the lecture method. In three experiments this method was tested against the lecture method and in one experiment against individual instruction. In all four experiments the group discussion leading to group decision proved the more effective in producing action.

You should consider your program carefully. Does it really contribute to better living? Is the method you are using best adapted to the material you are trying to teach? Are you considering the human being you are trying to reach? Are you using the democratic approach or are you using dictatorial methods?

If you believe it is important to maintain this country as a democracy, you can help by using democratic methods.

Reference:

What Research Shows About Group Discussion Leading to a Group Decision.
Gladys Gallup. U. S. Department of Agriculture, Extension Service.
14 pp. 641-6-50.

Planning for Civil Defense

America is facing a new way of life. You need to help people understand why adjustments may be necessary and to help them make their adjustments.

We are facing a long-time emergency in which we may be more or less engaged in war. The world food situation plays an important part in this picture. You, as a nutrition specialist, need to help people understand the part food plays.

In America we place human values first. We believe that the State is made for man--not man for the State. Many persons find it difficult to understand the kind of life we might lead under another form of government. They are not aware that our way of life is threatened. It is hard for them to understand why civil defense is necessary.

You need to help people realize that civil defense is extremely important and that it is everybody's business.

The first thing you can do is to help people to become more self-reliant. You can help them to learn how to separate facts from propaganda. You can help them to realize that a long period of self-discipline may be needed.

We must have good leaders to make a strong civil-defense program. Because the Extension Service works through a leader-training system in many States, we can help civil-defense authorities to locate and develop capable leaders. Civil-defense leaders who function properly can help to build community strength.

Civil defense is both a State and a local responsibility. At present, some civil-defense groups have worked out careful plans. Others have made no plans at all. Extension can help persons to feel a sense of responsibility in their own communities.

Everyone should feel an obligation to know first aid. As a means of self-preservation every family should have at least one person trained in first aid. We are told that, with our present defenses, over two-thirds of the enemy planes that might try to attack us could get through. In addition to defense against air attack we need to be concerned with sabotage and with psychological and biological warfare.

In the event of attack, we in Extension would be faced with many problems in rural areas. There may be refugees from bombed-out areas to feed, clothe, and house. In some States the extension service has been named as the agency responsible for the mass feeding of displaced persons in rural areas. In such an emergency, the primary object would not be good nutrition so much as getting enough food into empty stomachs. Feeding, clothing, and housing activities come under the Welfare Service of Civil Defense.

The Health and Emergency Welfare Divisions of Civil Defense have the following assignments, to--

1. Provide for mass care.
2. Have a registration and information service.
3. Provide temporary rehabilitation for persons.
4. Establish procedures for evacuation.

The Red Cross is responsible for--

1. Home nursing training.
2. First-aid training.
3. Canteen training.

Some of the technical services that should be organized in your State are--

1. Engineering.
2. Rescue.
3. Police.
4. Fire protection.
5. Warden.
6. Transportation.
7. Communication.

Why not check and find out exactly what their plans are.

References:

Mass Feeding in Disaster. American National Red Cross, Washington, D. C. June 1951. ARC 1540.

Manual for the Operation of Emergency Feeding Stations. Prepared by Battle Creek Home Economics Association; Mrs. Helen Brantan, Apartment 7, Kulp Court, Battle Creek, Mich. January 1951.

Handbook on Emergency Feeding. New York State Civil Defense Commission. Executive Department, 124 East 28th Street, New York 16, N. Y.

Emergency Feeding Plan. Maine Extension Service. Orono, Me. 1950.

Feeding in Hospitals. Dietetic Association, Washington, D. C. 1951.

Emergency Food Shelf. Pennsylvania Extension Service, State College, Pa. 1951.

Emergency Food Shelf. Connecticut Extension Service, Storrs, Conn. 1950.

How to Strengthen Your Program Through Cooperation

One of the best ways to strengthen your program is to get other people to work on it with you. The first step is to sell yourself on the importance of cooperation. The more people become interested and know about your program the more interest in the program grows. The more you understand and help with the programs of others, the more ideas you get yourself. You must stimulate the interest of the State extension staff in the nutrition program. The district agents as well as the director and State leader should know about your program.

Become acquainted with the personnel of each organization that works in the field of foods and nutrition.

Develop a genuine interest in their program.

Find out what they are doing in the nutrition field.

Offer cooperation.

Keep up-to-date mailing lists of these groups.

Acquaint groups with information available through extension offices. Find out what they have to offer. An exchange of publications, research findings, and teaching devices may be mutually helpful.

Some of the specialists with whom you can integrate your program are those in the following fields:

Food preservation
Home management
Family life
Health
Animal husbandry

Poultry husbandry
Gardening
Horticulture
Consumer education
Editorial
4-H Club

Related agencies in your State or county, with whom you may cooperate:

Public health
School lunch
Resident staff of college
and university
Farmers Home Administration
Production and Marketing
Administration

Soil Conservation Service
Rural Electrification Administration
Vocational Home Economics
Research
Veterans' Administration

Other organized groups with whom to cooperate:

Farm groups	Parent-teacher Associations
Civic groups	Rural schools
Church groups	Garden and other women's
Welfare groups	clubs
The Red Cross	Libraries

Commercial groups that may help with nutrition education:

Utility companies	Commercial food companies
Appliance dealers	Radio stations
Newspapers	

Hold membership in State and National organizations, such as the -

Home Economics Association	Business and Professional Women's
Dietetic Association	Club
Nutritional Council	American Association of University
	Women

METHODS OF TEACHING

The Method Demonstration

Demonstration is one of the oldest and most effective forms of visual education. It makes at least two impressions - one on the sense of vision and the other on the hearing.

Before you can give a successful demonstration you must know your group and its needs. You must know the main point you want to teach and your reason for teaching it to this group. If you are training leaders, think how the main point can be adapted to the group's local conditions. Find out whether the material is available locally. Can a leader repeat this demonstration effectively? Then you can make your plans accordingly.

Strive for perfection when you give a demonstration. No one is perfect; but strive for perfection. Know your equipment, have it checked and be sure it is as nearly perfect as possible. Be familiar with all utensils and appliances to be used in the demonstration so that you can use them with ease. The less you have to worry about, the better.

Use familiar, tested recipes so that you can be sure of them. Use recipes that are in proper order. Use notes and recipes openly; don't try to remember the ingredients. If you do, you are likely to forget something and spoil your finished product.

Pointers on personal conduct.--Be sure of yourself. Be able to talk and work at the same time. If you can't do this with ease, practice at home. Whenever you make biscuits, talk to yourself the entire time you're making them. As soon as you stop talking in a demonstration, the audience starts to talk.

Be quick. No one wants to watch a slow demonstration. Be relaxed and your audience will also be at ease. Always be patient. You will be asked some questions that seem silly to you, but be sure to answer them willingly and try to keep the group from laughing at the person asking the questions so that she will not be embarrassed.

Always repeat a question so that everyone hears it. Be sincere and tactful. Suggest. Do not dictate. We live in a democracy and let's use democratic methods. In making pie crust, for example, tell the audience that if they do not have good results, they might like to try your way. Then explain why.

Make the demonstration your own personal one. Always put something of yourself into it.

Be friendly in your actions and appearance. Act friendly, be cheerful; laugh with your audience. There are two schools of thought regarding clothes: One favors a white uniform, which is excellent for a demonstration in which you want to look professional; the other favors a sports-type dress or a dress that the housewife would wear in her own kitchen. For a more formal type of demonstration it is better to wear a uniform; for informal demonstrations, a dress. The latter seems to promote a more friendly attitude. Don't wear a lot of jewelry. Include the group in your demonstration. Ask them if you've forgotten anything or ask them to help you count. When you've handed out recipe sheets, indicate the recipe you're using, so that they all find it at one time and do not have to look while you are talking.

Tell personal stories. Audiences love to hear about your husband if you have one. If you don't, tell stories about your mother, father, sister, or brother or even a friend.

You must like your work. If you like what you're doing the group will enjoy watching you. Of course there is always some tension, but if the demonstration is well planned and sufficient time is allowed for preparation, there should be nothing to worry about.

Be able to "take it." Demonstrations are hard and unusual situations do arise. Children run around the tables; cats rub your legs. Don't let these situations bother you. If possible, have someone else to take care of them.

Planning the demonstration.--To give a smooth demonstration you must have a plan and follow it. First, decide on a subject that is important, and the people who are to see the demonstration. Next, plan the demonstration. The following outline may be helpful:

1. Introduction.

The introduction or first part of the demonstration must attract attention. The listeners should be made to feel that the subject is

important, worth-while, practical, and valuable. In an individual demonstration, the demonstrator introduces herself and gives the name of her club. Make the introduction short.

2. Main part of the demonstration.

Start working; then build in explanation. Make the explanation fit the action. For each step, tell what is being done, how it is being done, why this method is being used, and perhaps something about the material or equipment used.

If you write your demonstration, talking it will help you to remember the material. Be sure to use your own words. Do not memorize the talk. Material memorized never sounds convincing.

Arrange the demonstration so that processes follow one another in logical order.

All steps must be demonstrated. If part of the demonstration has been done ahead of time, explain what happened. If a demonstration shows the making of a product, be sure to show the finished product.

3. Conclusion.

The conclusion is a summary of important points. The demonstration table is cleared except for the finished product. Display the product in an attractive manner. A good-looking tray or cloth helps. If a food is prepared, it is well to serve samples of it. If you serve samples be prepared to serve the food attractively. If you have prepared a food, it is a good idea to pass out the recipes.

Plan the recipes you want to use.--Then test and taste these recipes. Some foods look good but don't taste good. Be sure to specify such things as the size casserole or pie plate.

After you have made out your recipe sheet, make a procedure sheet. On this list the foods in the order in which you are going to demonstrate them, starting with the ones that cook the longest. Then on the procedure sheet, after each item to be demonstrated, write exactly what is to be done ahead of time, the utensils that will be needed, the mixer if one is necessary, the range features to be used, the heat, and the time involved.

Trays of materials for use in preparing different recipes should be ready in proper sequence. Plan to put on each tray as many of the things used in demonstrating that particular recipe as possible, and in the order in which they are to be used. Wrapped materials should be easy to open.

This planning may seem like a lot of work, but it does make the demonstration easier for you and results in a smoother presentation. If you ever have to repeat the demonstration, it will be much simpler to refer to your plan than to start again from scratch.

When planning the demonstration, make out a market order listing the food you need to order and the food you have on hand.

Giving the demonstration--Be sure that the audience can see and hear you. In giving a demonstration the voice should be pitched low and be pleasingly modulated. A direct conversational tone is usually effective, and the voice should be heard by all in the audience. Talk to the audience. Try never to turn your back on the audience, but if this is necessary, don't talk while you are doing it. Keep your voice from dropping at the end of a sentence, because that practice can prove annoying. Correlate your action with your talk. Plan so the longer explanations are given during action that takes more time.

Have an intermission if the demonstration lasts over three-fourths of an hour. Make the demonstration look easy, so that the group will want to go home and try what you've done. They won't be interested if the demonstration appears hard. Make it look like fun and really make it fun. Keep your work table clean and neat. Have extra utensils such as extra measuring cups and spoons, etc., in the drawer; a damp cloth and paper towels on the table.

Measure some of the ingredients ahead of time and explain that you did this because it would take too long to measure every cup of sugar in front of the audience. Show every step of the recipe, or explain if it is necessary to do it, in advance. If you are making something "tricky", then make at least one sample in front of the audience. Have some things made ahead of time if they must cool.

Use charts, slides, and movies to aid in the demonstration. If possible, give small charts to take home.

Bring the demonstration to a close by summarizing and stating its purpose. Display the food and ask if there are any questions. Serve the food. Have an open mind. Go to other demonstrations. You might see something you want to use, or you might find something you don't want to use. Listen to the suggestions from the audience. Often they have some good ideas.

Reference.

Demonstration Technique. M. B. Allgood. 141 pp., illus. Prentice-Hall, Inc. New York, N. Y. 1947.

Hints for Planning TV Demonstrations

Before planning your TV program--

1. Find out the kind of audience you'll have--men, women, or children. This will undoubtedly depend on the time of day. If it is noon, or early afternoon, plan for women; later afternoon and early evening, plan for children; evening, plan for men and women.
2. Gear conversation to one person or small group. In this way, it will seem to everyone listening, that you are visiting especially with him.
3. Get to know your camera, cameraman, and director. They are the go-between for you and your audience, and can help you give interesting twists to your presentation. Getting acquainted with the camera insures confidence and ease during the program.
4. Familiarize yourself with your TV kitchen and working area. This makes it easier to plan your program accurately.
5. Check with the director on the type of rehearsal used. If it is "live," plan to duplicate the demonstration, because this type of rehearsal means performing as though you were actually on the air. Check also on rehearsal time, and give yourself plenty of time to get set up for rehearsal.
6. Check on available equipment. Make lists of necessary additions. You might want to dress up your kitchen a little to make it "homey" and give it that "lived in" look. This adds interest and gives a finished appearance to your program.
7. Make sure that you know exactly how long you are participating on the program and what the breaks are.
8. Have all white kitchen appliances sprayed a pale gray or pale blue. Spray liquid wax on chrome appliances to avoid glare.
9. Know how soon before the program you are permitted on the set. This is important when you are planning how you want to "set up" for a program.
10. Check the approximate number of your audience so that you can plan for mail response, and have recipes to meet requests. Give your mail a personal touch, although recipes may be mimeographed.
11. Have all appliances checked every time you perform, shortly before going on the program.

In planning your program--

1. Make it simple. Strive for recipes with few steps.
2. Try to show the finished product at the beginning and end of the program.
3. Plan for the work-a-day world casseroles, quick desserts, and short cuts.
4. Give "special-day" programs far enough in advance, so that requests for recipes can be received and recipes mailed in plenty of time for use.
5. Plan to use your program full-time; but if it has to be cut, an idea can be omitted without disrupting the entire program. Always have an extra idea.
6. Try to plan a complete meal; at least plan to show related foods together, such as entree, salad, and dessert; or dessert and beverage.
7. Place less food on a plate than would be served normally. The camera makes a portion appear more generous. This applies also to garnishes, so go sparingly.
8. Strive for color and texture contrast but avoid sharp contrast, as light objects look lighter when placed next to extremely dark objects, and dark objects look darker.
9. Have enough props to give a finished look to your recipe. They are important. Try to vary your props in order to avoid monotony for your audience. Avoid too busy a pattern.
10. Prepare all the obvious things before the program--chopping food, whipping cream, opening cans, loosening bottle caps, having spices ready-measured and meat browned. Then be sure to mention that this has been done and give the measurements of food. Keep the program fast moving.
11. In planning your program, avoid noise if possible. Try not to use the following equipment: Electric mixers, rotary beaters, minute minders, singing tea kettles, paper toweling, waxed paper, and metal spoons. If you have to use mixers, beaters, or minders, place them on two or three thicknesses of dish toweling and use the lowest speed possible on an electric mixer. Incorporate the following ideas whenever possible: Loosen springs on oven doors, oil rollers on kitchen drawers, use rubber spatulas, use wire whips instead of a rotary beater, use

wooden spoons instead of metal spoons, use damp cloth instead of paper toweling, and use transparent plastic sheets instead of waxed paper.

12. Work in household hints whenever possible so that the audience learns at least one new thing.

13. Use useful gadgets and point out their value for shortening housework.

14. Glass utensils are excellent because the audience can see the food better. Shallow or wide-mouthed bowls are best for camera shots.

15. Make sure that the oven holds all the food you want to place in it, and place the food in the oven so you can take it out in proper sequence.

16. The use of trays for each recipe makes for a neater, faster moving program. Place the trays in sequence for use in program. When using a tray during the program, place it on the table in the best position for viewers, so that they can see what you are doing.

17. Use custard cups for small amounts of ingredients. They are neater and easier to handle.

18. Plan your program with the stage crew in mind. Be prepared to share with them the food prepared on the program.

19. If you are a guest, send your program outline to the hostess far enough in advance to give her an opportunity to check the equipment, confer with the director and cameraman, and supply herself with information, so that she can make her own introduction and summary to your program, or, if she is participating, too, to tie the program together.

20. If you are planning a weekly or daily program, do so well in advance. Some plan as far as 6 weeks ahead.

21. Plan your program so that you can work in as small an area as possible. Avoid any quick or unannounced movements. Give the director verbal cues before changing position.

22. Plan to talk less than when giving your regular platform demonstration--and talk slowly.

Consider your personal appearance--

1. Choose simple cotton dresses with sleeves, and avoid too-low a neckline. Soft pastels usually are best. Bold plaids, medium or large checks, flowered or print dresses, or fussy dresses are taboo. Choose a dress that is fairly loose fitting, is easy to move in, and looks comfortable. It will appear more becoming to audience. Select dresses that are easy to don; button-down-the-front dresses are always good.

2. Dress simply. Leave jewelry, except your wrist watch, at home, especially any that may reflect glare in the camera.

3. Comb your hair just before you appear in order to catch any stray locks. Keep hair shampooed and set it to be as becoming as possible. Untidiness is irritating to viewers.

4. Maintain immaculate nails. Medium to light nail polish is good because it accentuates contrast in hands. Avoid the lustrous type of polish (any that might cause glare). If hands have tendency to show veins, use make-up on them.

5. Let the make-up artists determine your make-up.

6. Bleach unsightly hair on arms and face. Ask your druggist for directions.

During rehearsal--

1. Make notes of any changes in the program.

2. Be fully acquainted with the camera to insure ease during the program.

3. Check any shots about which there may be some doubt as to setting and props.

Before the program--

1. Check and recheck trays.

2. Check all appliances to make sure that they are operating properly.

3. Assemble extra equipment for emergency.

4. Set up paper cups and plates so that the crew can taste the food after the program.

5. Allow ample time for make-up.

6. If another program is on in the studio, be as quiet as possible. And above all, be careful where you walk, you might accidentally walk before a "live" camera.

7. Get to the studio early enough to give yourself plenty of time to set up your equipment, get made up, and check and recheck your trays.

During the program--

1. Be enthusiastic about your subject. Cameras are sensitive and convey attitudes very well.

2. Avoid overtalking. Use short sentences.

3. Accidents happen. If one does happen consider it as a joke and keep going. The chances are that it will be funny, anyway.

4. Be yourself, work in a little humor. Avoid developing a special TV personality.

5. Try to move slowly and give the director a verbal cue before changing your position.

6. Use as small a working area as possible, and have your materials as close as possible without cluttering space.

7. Never eat on your own program. Offer tastes to any guests.

8. Think of one person or a small group, and talk only to them. This gives a personal touch. Talk mostly into the camera while you conduct the demonstration.

9. Ask for occasional close-ups on face. The audience likes to know who you are.

10. Speak with inspiration, women need it. One purpose of the demonstration is to inspire women to take pride in their job of home-making.

11. When showing finished recipes, hold the subject still long enough for audience to get a good look.

12. Give the ingredients and method of a recipe as you prepare it; repeat the recipe after you have completed it. If possible, show a card in close-up listing ingredients.

13. Work toward the camera. Tip bowls toward the camera. Keep hands out of the way of the camera. Practice this. Be graceful.

14. Keep your head up so that the overhead "mike" has a better pick-up.

15. Talk to the right camera. When a close-up camera is on your subject of preparation, talk into the opposite one (the one with red lights on), so that when the director switches cameras you don't have to change your face direction.

16. While not performing, be very quiet; noise not only distracts other performers, but sensitive mikes magnify all noises.

17. Check on arrangements for time signals.

After the program--

1. Feed the crew.

2. Be sure your working area is spotless when you leave.

3. If you are a guest, (1) if viewers are given an opportunity to write in for recipe material, make arrangements to have their requests handled promptly, (2) wait until the program is all over before packing.

Don't let anything bother you.

References.

Planning a Home Economics TV Show. Guy Corris. Helmes Bakeries, 8780 Venice Blvd., Los Angeles, Calif.

In Front of the Television Camera. Bette Zellers. Kitchen Reporter, September 1951. Kelvinator Kitchen, Detroit, Mich.

Outline for a 25-minute Easy-mix Pastry Skit for TV Program. Corn Products Refining Company, Home Service Department, 17 Battery Place, New York 4, N. Y.

Visual Aids. Maynard Speece, Alice Akelsi, and Kenneth M. Gopen. unnumb. 28 pp. Radio and Television Service, Office of Information, U. S. Department of Agriculture. Washington 25, D. C. June 1951.

Your Publication

Planning and preparation before writing

Skills required.--The preparation of booklets, bulletins, and leaflets involves a knowledge of the arts of printing, writing, and design; illustration including photography, psychology, and human understanding and salesmanship; plus a pinch of imagination and a dash of enterprise, a cup of determination, and a quart of patience. Reports, letters and memorandums, skits, telecasts, and radio scripts all require much the same skills.

Working principles.--In planning more effective materials, observe these principles: (1) State the purpose, (2) know the audience, (3) understand the distribution and the packaging, (4) develop the theme, (5) make the rough dummy, (6) visualize the cover, and (7) get the right title.

Terminology

Booklet.--A book of small printed pages. It can contain a few pages or many pages (8 to 32 or more). It can be bound in self-covers, or be more elaborate, with paper or board covers. "Bulletin" is the name frequently used by Government and private agencies for publications of this type.

Brochure.--A printed and stitched book containing only a few pages.

Leaflet or folder.--This printed form is made of a single large sheet of paper, folded to form small pages, but not stitched. It can be folded flat and mailed in standard-size business envelopes.

Circular.--This is a designation that can be applied loosely to a variety of printed pieces. A circular may be a single leaf, a folder, or a booklet of a few pages. Circulars can be designed to be folded flat and mailed in standard-size envelopes.

All these specialized publications are alike in one respect: Each is a unit, complete in itself for the purpose intended, devoted to a single phase of a broad or general subject. The content is defined and limited by subject and size.

Know or define the specifications and limitations on every publication: (1) Size of publication; (2) shape of publication; (3) quality of paper stock; (4) is publication to be printed in black and white, two colors, or four colors; (5) do illustrations consist of drawings or photographs or both; (6) who is to plan and lay out the publication, (7) who is to supervise its production; (8) know the publication date; and (9) arrange schedules to meet copy, photographs, first proofs, and final proofs.

Management and policy matters--The budget may be a controlling factor. Get the most through better plans. Policy statements vary in every organization, Government and private. Research and technological developments in food and nutrition mean more frequent publications and revisions.

Be sure you know (1) the general subject matter to be covered, and (2) the basic purpose of the publication.

Purpose--If not clear, the publication is likely to be a failure and not used even if distributed.

Is it to educate? Does it tell how to feed a child; how to plan meals for a family of seven--ages from 7 months to 70 years. The publication should be helpful in raising standards and should furnish information about a better way to do the job or accomplish the goal, so that the reader will not be satisfied until he has raised his own standards.

Is it to promote? How well did you do your job; your annual report? Would it help to have an expanded school-feeding program, or is just a school-lunch program enough? The direct or indirect aim is to recruit support.

Is it to stimulate action? Such publications pose a problem for the purpose of getting the reader to do something about it. Some good examples are: How important is enrichment legislation or its enforcement in your State? Are the sanitary or food-handling training courses adequate?

Is it to inform? How much does it add to the understanding of members of the home demonstration clubs if they have an opportunity to know just what families in other countries have to eat? Would wiser food-conservation practices result if the members knew the relative values of foods preserved by different methods, and ways to use these foods in appetizing meals with a minimum of work?

Can you close your eyes and "see" the person who is to read, and use, and enjoy your publication-to-be? Don't talk about his problems, but analyze them and figure out what is to go into the publication that will help him. What is the purpose? Make it crystal clear. State it. Examine it. Subject it to examination by others. Review pieces you have put out before, and those that come to your desk. See if you can realistically and honestly see their purpose.

Audience or readers--Who are the people you want to reach? Are they the people that come to club meetings, or are they the people that never come to club meetings? What kind of people are they, big farmers or small farmers, urban or suburban dwellers? Is farming

their source of income? Are they teen-agers; are they past middle age; or are they in that vital group, eager for help yet hesitating to seek it--the 18- to 35-year age group? What are they interested in? What questions would they want answered about themselves that might be related to food, its production, preservation, preparation, serving, or effect on the body?

Can you put yourself in the place of the reader? If you cannot, then before you go further: SURVEY, VISIT, SAMPLE. Knowing your subject is not enough; know your audience also.

Distribution--Mailing and distribution plans should always be considered. Self-mailers should be evaluated. To the extent feasible, series of publications and even all publications put out by an organization may be kept uniform in dimension to minimize mailing, storage, and filing problems. Or two or three sizes can be adopted and, generally speaking, they will cover the variations desired, without monotony.

Distribution will also include meetings of various kinds, filling requests, and answering inquiries. Know exactly how, where and when you are going to distribute your materials before you produce them.

Theme--The body of the publication will include the text, the design, photographs or other illustrations, headings, subheadings, and captions. Writing the text will depend somewhat on the subject matter. It also depends on the device you decide to use to get the story to your audience. Words, illustrations, type faces and sizes and the arrangement should be blended to give a pleasing whole that will stimulate action.

The dummy--The dummy is a planned lay-out that shows how a publication will look in printed form. The following suggestions may help in planning the dummy:

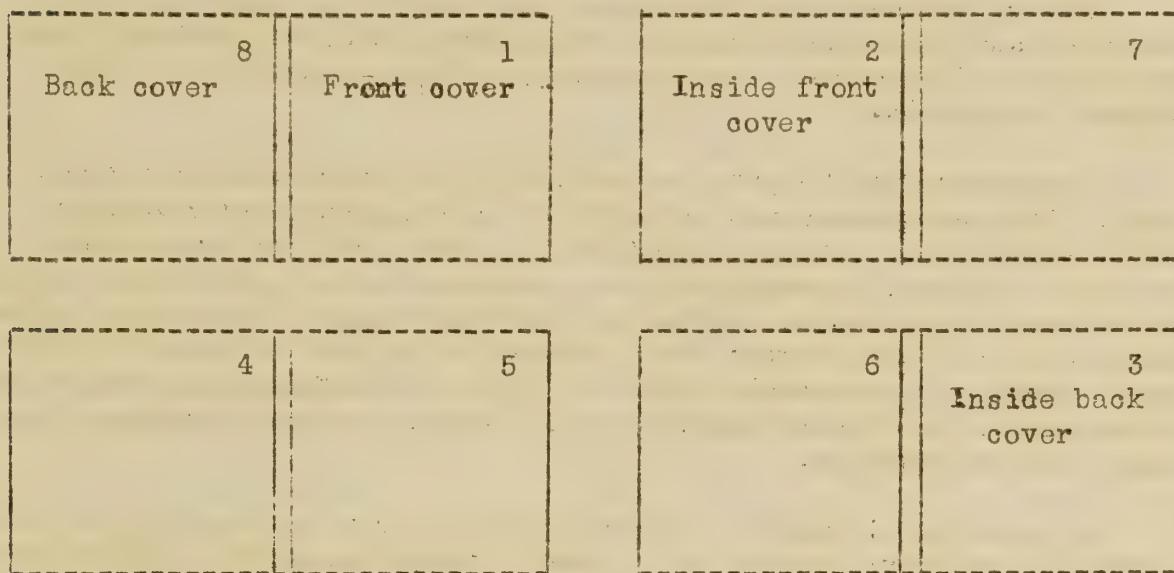
First, visualize the publication as a whole. Design pages to achieve balance in content and appearance. Have facing pages harmonious. Make headings show action by using verbs. Use different sizes of type for emphasis. Italics, used sparingly, lend variety. Blank space and short printed lines help to make for readability.

, The cover--An imaginative cover is an important element. It will get your reader inside. If he does not turn the first page, your message has been lost. The major objective is to symbolize or illustrate the message. The cover may include a striking photograph, an arresting caption or title, a spot of color, or a design with life and distinction that will attract attention. Imagination and ingenuity are required in creating the cover. A picture showing human beings in action, if suitable to the text makes an effective cover illustration.

The title--Find the right title for your publication. There is no set way of doing this, however. It may be based on the copy, or the cover illustration may suggest it. And you may change it a dozen times before you make your final choice.

The copy--These few suggestions may help: Keep the copy simple, use human terms in telling your story. Don't preach, don't overload with emotion. Keep the publications short, but make your point clear, let the reader know what is expected of him. Avoid overloading the text with statistics. Make the language fit the audience and end on a strong note.

The following diagram shows one method of visualizing an entire booklet:



References:

How to Write for Homemakers. Lou Richardson and Genevieve Callahan. 206 pp. The Iowa State College Press. Press Building, Ames, Iowa. 1949.

Pamphlets That Pull. Alexander L. Crosby. 32 pp. National Publicity Council for Health and Welfare Services. 257 Fourth Avenue, New York 10, N. Y. 1948.

Annual Reports. How To Plan and Write Them. Beatrice K. Tolleris. 39 pp. National Publicity Council for Health and Welfare Services. 257 Fourth Avenue, New York 10, N. Y. 1950.

Photography for Teen-agers. Lucille Robertson Marshall. 165 pp. Prentice-Hall, 70 Fifth Avenue, New York 11, N. Y. 1951.

How To Make Good Pictures. (staff written). 240 pp. Eastman Kodak Co., Rochester 4, N. Y. 1951.

How to write recipes

Writing recipes is fun, but can be a "ticklish" job, because recipes must be accurate and clearly described if you can expect to have them used. Ingredients should be given in the order in which they will be used; cookery methods should be those that the reader will understand or else be carefully and thoroughly explained. If, in addition, a recipe has appetite appeal and reflects the writer's friendly effort to be helpful, it will, of course, be more readable.

Before you can write the recipe you should, of course, test it and make sure that the steps you are recommending are best and that the recipe will produce a good product. Always test every recipe before you use it.

Homemakers may be young or old, with no experience or a great deal. They may or may not be skillful in following directions and in handling food. The equipment they use may include temperature-controlled ovens, thermometers, and pressure cookers, and every gadget on the market; or it may be limited to a minimum of kitchen necessities. Regardless of these factors most homemakers prepare or supervise the preparation of three meals daily and often add between-meal snacks and refreshments for family entertaining. This means using recipes, and using them constantly.

Be practical! Modern food industries strive to simplify cookery techniques required in the use of their products, so that homemakers need fewer special skills, and then pass along to food writers and educators the benefit of the experience gained in their own research kitchens. Homemakers, in turn, look to food writers and educators for recipes that are practical and will give the greatest returns from new products and that also show ways of adapting new products to their own favorite recipes.

Good recipe writing, therefore, is an art that includes good, clear writing, a recognition of whether the homemaker's cookery experiences have been broad or limited; an awareness of the lack of uniformity in kitchen equipment; and a knowledge of the many developments in the processing of foodstuffs.

Pick your basic pattern.--There are four basic patterns for writing recipes: (1) The Conventional-Command Pattern, (2) The Conventional Pattern, (3) The Action Step-Command Pattern, (4) The Conversational Pattern. A great many writers and publications, however, vary, and combine these patterns to achieve a Combination Pattern which carries with it the personality of the writer or conforms more closely to the space limitations of the publication. The Combination Pattern affords the food or household equipment manufacturer a better opportunity to show the most effective ways of using his particular products.

Be consistent.--Whatever the pattern decided upon, every writer of recipes should strive for consistency when using terms and phrases that describe similar products or operations. This is particularly true when several recipes are grouped together such as in a booklet, article, or cookbook. As an example of inconsistency and, consequently, poor writing, here are some of the ways yeast is described in a current book: "1 yeast cake," "1 cake compressed yeast or 1 envelope dry yeast," "1 yeast cake or 1 envelope of grain yeast."

Obviously the recipes using the foregoing expressions were drawn from various sources. But in a well-edited manuscript, the best phrase would have been selected for use in all the recipes. The expression selected usually depends upon the personal preference of the writer, or perhaps upon a regional expression familiar to those who finally will use the recipes; or upon whether the space available permits brief phrases or expansive, descriptive ones. Consistency not only is a sign of a professionally edited job, but makes food preparation less confusing, particularly for inexperienced cooks or homemakers who might conclude that the different ingredients or procedures were required because the phrasing was different.

Following are the four basic recipe patterns, each one illustrated by a basic-roll recipe. They show the importance of including in a recipe the different forms of a product sold on the retail market--in this particular case, active dry yeast and compressed yeast; and the importance of accuracy in describing such specifics as ranges of temperature--in this instance here, the temperature of water used with yeast to obtain best results in the finished rolls.

For the Conventional-Command Pattern, the ingredients are listed in the order of their use, and the instructions are given in steps. This method is particularly good for inexperienced cooks. It is excellent for use with 4-H members. It is good for more complex recipes such as baking. Although it takes more space in a booklet than does the Conventional Method, it is well worth the space if you expect the recipe to be used rather than read.

Basic-Roll Dough

3/4 cup milk	1 package or cake yeast,
1/4 cup sugar	active dry or compressed
2 1/4 teaspoons salt	3/4 cup warm, not hot, water
1/4 cup shortening	(luke-warm for compressed yeast)
4 1/2 cups sifted, enriched flour	

1. Scald milk, stir in sugar, salt, and shortening. Set aside to cool to lukewarm.
2. Sprinkle or crumble yeast into water (warm, not hot, for active dry yeast; lukewarm for compressed yeast). Stir until dissolved.
3. Combine the lukewarm milk and yeast mixtures.

4. Add and stir in half of the flour; beat until smooth.
5. Add and stir in remaining flour or enough to make a stiff dough; turn out on a lightly floured board and knead 8 to 10 minutes or until the surface of the dough is smooth and satiny and the dough feels springy and elastic and does not stick to the board.
6. Put dough into a greased bowl; brush top lightly with soft or melted fat, cover with a cloth.
7. Let rise in a warm place, free from draft, until double in bulk; about $1\frac{1}{2}$ hours.
8. Punch down, pull sides into center, turn out on lightly floured board.
9. Shape into desired form and put in a greased muffin pan or on greased cooky sheets.
10. Cover with a cloth and let rise in a warm place, free from draft, until doubled in bulk; about 30 to 40 minutes.

Bake as follows: For Parker House rolls on cooky sheets at 425°F. (hot oven) about 20 minutes; makes 24. For clover-leaf rolls in muffin pans with $2\frac{1}{2}$ -by $1\frac{1}{4}$ -inch cups at 425°F. (hot oven), about 15 minutes; makes 24. For Fan Tans in muffin pans with $2\frac{1}{2}$ - by $1\frac{1}{4}$ -inch cups at 400°F. (hot oven), about 20 minutes; makes 24.

For the Conventional Pattern, the ingredients are listed first in order of their use. The directions are given in a continuous paragraph. This pattern is best used with simple recipes and is for experienced cooks. This style of writing is more difficult to follow.

Basic-Roll Dough

$\frac{3}{4}$ cup milk	1 package or cake yeast,
$\frac{1}{4}$ cup sugar	active dry or compressed
$2\frac{1}{4}$ teaspoons salt	$\frac{3}{4}$ cup warm, not hot, water
$\frac{1}{4}$ cup shortening	(lukewarm for compressed yeast)
$4\frac{1}{2}$ cups sifted, enriched flour	

Scald the milk and stir in the sugar, salt, and shortening; set aside to cool to lukewarm. Sprinkle or crumble yeast into water (warm, not hot, for active dry yeast; lukewarm for compressed yeast). Stir until dissolved. Combine the lukewarm milk and yeast mixtures. Add and stir in half the flour. Beat until smooth.* * *

The Action-Step Command Pattern is well adapted to recipes in which many steps are involved. Older cooks may find difficulty in following this pattern, since they are not accustomed to the style.

Basic Roll Dough:

SCALD:

3/4 cup milk

ADD AND STIR IN:

1/4 cup sugar
2-1/2 teaspoons salt
1/4 cup shortening

MEASURE into large bowl:

3/4 cup warm, not hot, water for active dry yeast
(lukewarm for compressed yeast)

SPRINKLE OR CRUMBLE IN:

1 package or cake yeast, active dry or compressed.

STIR until dissolved. ADD milk mixture, cooled to lukewarm.

ADD and STIR IN:

2-1/4 cup sifted, enriched flour or enough to make a stiff dough.

BEAT until smooth.

ADD and STIR IN:

Additional 2-1/4 cups sifted, enriched flour.

TURN OUT dough on lightly floured board. KNEAD 8 to 10 minutes or until the surface of the dough is smooth and satiny and the dough feels springy and elastic and does not stick to the board. PLACE in a greased bowl. BRUSH top lightly with soft or melted fat. COVER with cloth. LET RISE in warm place, free from draft, until doubled in bulk, about 1-1/2 hours. PUNCH DOWN; PULL sides into center. TURN OUT on lightly floured board.* * *

The Conversational Pattern is good for newspapers and magazines when it is read for pleasure rather than used for making the product. It occupies more space than other patterns and calls for definite writing style if it is to be effective. Information as to the "whys" can, however, be incorporated.

Basic-Roll Dough

Measure into a small saucepan 3/4 cup milk and heat to scalding. Remove from heat and stir in 1/4 cup sugar, 2-1/4 teaspoons salt, and 1/4 cup shortening. Set aside to cool to lukewarm. Measure into a large bowl 3/4 cup warm, not hot, water for active dry yeast; lukewarm for compressed yeast. The dry yeast is much more convenient because you can keep it in the little foil envelopes for months on the pantry shelf, or even longer tucked into a corner of the refrigerator, and it dissolves fast and easily in the warm, not hot, water. Sprinkle or crumble 1 package of dry yeast or 1 cake of compressed yeast into water and stir until dissolved.

Now pour the lukewarm milk-sugar-salt-shortening mixture into the yeast and water mixture. Sift some flour onto a piece of waxed paper. Always use an enriched flour; it's more nutritious than un-enriched flour, tastes the same, and costs no more. Measure 2-1/4 cups flour and stir into yeast mixture; beat until the batter is smooth. Add and stir in the remaining 2-1/4 cups flour or enough to make a stiff dough. You may need a bit more or less, as some flour takes up more liquid than others. The dough should form an irregular ball that comes away from the sides of the bowl. Sprinkle some flour on a board and turn dough out on board. Knead the dough for 8 to 10 minutes, or until the surface is smooth and satiny and the dough feels springy and elastic, and does not stick to the board. Kneading is a sort of three-step rhythm: (1) Fold the dough over on itself toward you, (2) with the heels of the hands push the dough away from you, (3) then grasp the dough firmly and turn it one-quarter way around. A bit of practice and this becomes automatic. The dough will become springy and elastic as the kneading develops the gluten in the flour. The function of the gluten is to form a sort of elastic framework in which the tiny gas bubbles formed by the yeast are captured. Shape the dough into a ball, then put it into a greased bowl and brush the top lightly with soft or melted fat to prevent a crust from forming over the outside of the dough; flip a cloth over the bowl and put it in a warm place, free from draft, for about an hour and a half. The time required for the rising depends on the temperature, the amount of yeast and other ingredients such as salt and sugar. The dough is ready when it has doubled in size or when a deep hole is left when you push two fingers into the center top of the dough.

Then it is time for the "punch down." Thrust your fist into the center of the dough, and as the dough sinks down, pull the edges from the sides of the bowl into the center. Turn out dough onto the floured board where you will shape the rolls. Shape any way you like: Parker House, clover leaf, Fan Tans, dinner rolls, or any other. Put in greased muffin pans or on greased cooky sheets. Cover with a cloth and set aside in a warm place for a second rising. This takes less time, usually from 30 to 40 minutes. Set the control on the oven for the desired temperature. Bake as follows: For Parker House rolls on cooky sheets at 425°F. (hot oven), about 20 minutes; makes 24. For clover-leaf rolls in muffin pans with 2 $\frac{1}{2}$ - by 1 $\frac{1}{4}$ -inch cups at 425°F. (hot oven), about 15 minutes; makes 24. For Fan Tans in muffin pans with 2 $\frac{1}{2}$ - by 1 $\frac{1}{4}$ -inch cups at 400°F. (hot oven). about 20 minutes; makes 24.

References

The use of good reference material is as important in recipe writing as in other kinds of professional writing. A good dictionary should be consulted for the current accepted spelling of words. For specific help in writing on food preparation, the American Home Economics Association (1600 Twentieth Street, NW., Washington 9, D.C.), has published the Handbook of Food Preparation. It has also sponsored the American Standards Association (70 East 45th Street, New York 17, N. Y.) publications: Dimensions, Tolerances, and Terminology for Home Cooking and Baking Utensils.

Readability 2/

Even though you have planned your publication carefully you must still write so it can be read easily.

The shorter your sentences, the shorter your words, and the more your writing "talks" to or about people, the easier your writing reads. These are the guideposts for writing "easy reading" suggested by the New Flesch Readability Formula. This readability yardstick helps you estimate how clearly you "say" your ideas to your readers; it helps you weigh your words.

SAY facts in--

Short sentences--the shorter the better. Give only one idea in each sentence; express two related ideas clearly in two independent clauses separated by a semicolon (like this compound sentence). Avoid "tapeworm" sentences--complicated, complex sentences that run on and on with many "which" clauses.

Short words--the shorter the better. Use the simplest word that carries your meaning. Use concrete picture words. Translate abstract words into concrete. Explain difficult, technical words that have no simpler synonyms.

Personal references--the more the better. Use words relating to people. Person-to-person style of writing "talks" to reader in active voice--the way we speak to each other. Cookbook style implies "you"; this is one of the best ways to give information simply. The shorter your words and sentences and the more you refer to people in your writing, the easier your writing is to read.

These are the easy-reading guideposts suggested by the Flesch Formulas. 3/ The formulas show why this is. The following are examples of hard and easy reading on the subject of vitamins:

2/ Prepared by Amy G. Cowing, educationist, Division of Field Studies and Training, Extension Service, U. S. Department of Agriculture.

3/ See references, page 29.

Hard Reading

Neither growth nor health can be sustained unless the daily foods provide certain essentials which are called vitamins. Research has shown that the vitamins have great importance in many of the vital activities of the body. Health, growth, development, and fortification of the body against disease, (all of which are directly affected by the vitamin content of the foods eaten) can be influenced by a careful selection of foods. There are various kinds of vitamins, each kind having its own characteristics and functions. Vitamin concentrates are of great value where restricted diets or one-sided diets imposed by low incomes, ignorance, or indulgence have resulted in serious shortages or in acute symptoms of deficiency diseases, such as pellagra, scurvy, beriberi, and rickets.--College Level.

Hard to read because:

Long sentences: Average 24 words. Too many ideas and "which" clauses in sentences. Density of ideas.

Long, abstract words: 169 syllables per 100 words. Many verbal nouns and participles stuffed with affixes (prefixes and suffixes "fixed" on to root words)-- 57 affixes (underscored) per 100 words. Technical words not defined or translated into simpler terms.

No personal references or "people" words. No direct appeal to the reader. Passive voice makes this impersonal.

The Flesch readability yardstick does not measure all the factors that enter into easy reading. It does not test how well you select, sift, and sort your facts. It does not measure the effectiveness of

Easy Reading

YOU need vitamins. Everyone does--young and old. YOU need vitamins to build a healthy body and to keep fit and strong. When YOU eat fresh vegetables from YOUR garden YOU get vitamins in their natural form. Seeds are rich in certain vitamins. Green growing plants produce and hold them. Ripe fruits, vegetables, and grains give YOU vitamins, along with other nourishment. YOU can't taste vitamins or smell them. For the most part YOU can't even see them in the food YOU eat. To get all the vitamins YOU need for all-round health, try to have in YOUR meals every day the following basic seven foods-- Sixth grade level.

Easy to read because:

Short sentences: Average 11 words. One idea expressed clearly in each sentence. No "which" clauses.

Short, concrete words: 135 syllables per 100 words. Writer changes verbal nouns to verbs (shuns the "tion" words); translates technical "vitamin" into concrete foods (where you find vitamins); uses short root words with few affixes (22 per 100 words).

Human-interest words: 11 personal references (capitalized) per 100 words. Writer "talks" to YOU in active voice.

illustrations, lay-outs, size of type, spacing, or color of paper and ink. All these techniques influence readability.

Here is a table worked out by Dr. Flesch to check the difficulty of your writing without figuring the mathematical score by his formula. "Standard" is what the average American, both rural and urban, can read easily. "Very hard" is what average readers won't read voluntarily.

Reading level	Very easy, 5th gr. & under	Fairly easy, 6th grade	Standard, 7th grade	Fairly hard, 9th H. S. grades	Very hard, 3 yrs. Col.	Very hard, Graduate
Average sentence length in words ----	8	11	14	17	21	25
Syllables per 100 words	127	134	142	150	158	166
Personal references per 100 words----	19	14	10	6	4	3
Typical magazines:	Collier's; Pulp; Ladies' True Comics Story Journal	Atlantic Reader's Monthly; Digest; Harpers Time	Scientific ly; Yale and professional Magazines Review			

You can check the reading ease of your writing by just counting sentence length and word length. Aim at Standard reading level. If your sentences average 17 to 20 words, and your words have about 150 syllables per 100 words, you are writing for average readers. Anything above Standard is **too hard**. Anything below Standard is easier reading.

References

How To Test Readability. Rudolph Flesch. 56 pp. Harper & Bros., New York, N. Y. 1951.

Snappy Styles for Your Bulletin. Marjorie Arbour. La. Ext. Pub. 1090. rev. June 1951.

Let's Prepare a Publication. Nell B. Leonard. 84 pp. illus. Cornell Ext. Bul. 753. January 1949.

Pack Your Writing With Appeal. Amy Cowing. 5 pp. U. S. Dept. Agr. Ext. Serv., Div. Field Studies and Training. Washington 25, D. C.

Group Discussion Meetings

Methods are of value only in terms of their effectiveness for the job to be done. There are no set rules. Any available technique should be "shaken well before using."

Discussion methods that offer participation for each person present at a meeting and promote motivation are best adapted to extension teaching. The particular method used must be adapted to the problem and to the group.

Tips for leading and participating in a discussion

1. Tips for the discussion leader:

The leader's aim is to get members of the group to participate in the discussion without doing too much talking himself.

a. Prepare for the meeting in advance. Study the subject, and think through the problems or questions that might be discussed.

b. Make physical arrangements, or see that someone else does, before the meeting starts. This involves such things as arranging chairs and tables and checking lights and ventilation.

c. Start and close the meeting on time.

d. Put the group at ease. See that group members at least know each other's names. Have a friendly courteous attitude.

e. Discuss the problem of the meeting with the group members. Get their ideas about the issues involved and have them to help decide on the order in which the issues should be discussed. The group should also decide what they want to accomplish from the discussion.

f. Arouse interest. A challenging statement often helps to do this. Use questions to bring out different points of view. Keep the discussion on a positive plane and relate the topic to the experiences and interests of the group.

g. Encourage everyone to take part in the discussion. Through discussion, the members help themselves to think more clearly. Interrupt them as little as possible when the discussion is progressing satisfactorily. Do not "lecture" or express your own opinions. The leader's job is not to answer questions, but to refer them to the group or the consultant for consideration.

h. Don't hurry people. Give them time to think.

i. Keep the discussion objective. Do not let it get personal.

j. Keep the discussion to the point. If members of the group wander from the point under discussion, bring them back by saying, "Perhaps we could discuss that at a later date," or "Could you explain how the point you just made is related to the subject under discussion?"

k. Include as many people as possible without calling on anyone specifically.

l. Summarize frequently, or encourage group members to do so. Clarify points as the discussion moves along. Use the recorder's notes to help you summarize. The final summary should include only the conclusions reached by the group.

2. Tips for the consultant:

Frequently the consultant is asked to be the leader; but when he acts as leader, he is unable to function as a true consultant.

a. Know the subject matter to be discussed. A consultant may be either a specialist or a person who has looked up material for the subject under discussion.

b. Help individual members with problems by suggesting reference materials.

c. Understand the job of the chairman and the recorder, and help them with their part in the discussion.

d. Raise questions for the group to consider.

e. Do not monopolize the discussion or argue strongly for any particular idea.

f. Help the chairman and the recorder to prepare the written summary if one is planned.

3. Tips for the recorder:

The recorder is primarily responsible for getting down the main points that group thinking produces. This includes the major issues, with pros and cons indicated, the major agreements reached by the group, the decisions made, and the action agreed upon. The recorder's notes should be a summary of the discussion that has taken place, not minutes of the meeting. The most important work of the recorder is to help the group keep track of what it has done, furnish a check on where it is, and indicate where it is going. The report is a group report. It summarizes progress. Sometimes a blackboard recorder is also used, to help keep the facts before the group.

4. Tips for members of discussion groups:

- a. Come prepared to take part in the discussion. Your attitude may either help your neighbor to participate or cause him to keep silent.
- b. Speak your mind freely. The discussion meeting is yours. It provides you with an opportunity to say what you think.
- c. Listen thoughtfully to others. Try to understand the other person's point of view and grasp what experience and thinking it rests on.
- d. Keep to the subject. Every member has a responsibility for keeping the group on the subject of discussion.
- e. When you disagree, do so in a friendly way. Friendly disagreement is good for discussion, but keep your remarks on a constructive plane. Disagree in a courteous and good-humored way.
- f. Respect the person who is talking. Give him a chance to finish what he is saying before you start. Don't interrupt.
- g. Give others a chance to talk. Don't monopolize the discussion. Don't speak for more than a minute or so at a time.
- h. Help the leader by asking questions that will draw others out if the discussion lags.
- i. Keep your seat when talking. Informality is the rule. A discussion meeting is not the place for speeches.
- j. Follow the discussion to its conclusion. Every member has a responsibility to take some action on the final decisions reached in group discussion.

5. Straus and Straus ^{4/} summarize a method of discussion in which the responsibility for leading the discussion is shared by four members:

- a. The leader who guides discussion, summarizes or clarifies a point, or helps a shy member to get his bearing.
- b. A person who writes out high lights of the discussion on the blackboard. He may ask for clarification of a statement.
- c. An observer, who keeps records but takes no part in the discussion. He makes notes of how the discussion progresses, and possibly who participates and how often.
- d. A recorder, who keeps records and reports on the high lights, trends of discussion, and other important information. He summarizes the discussion for the group.

4/ See references, page 35.

This type of discussion is suitable for small groups--preferably for not more than 20 in a group. It encourages each person to participate. The methods used may help avoid domination by one person. The technique of conducting this type of discussion may be adapted to specific groups, or they may be introduced to a group piecemeal.

Types of Discussion:

1. Role playing

Role playing is a discussion technique that attempts to get maximum participation of a group by acting out an example of some problem under discussion. It is not a substitute for discussion but a method of promoting discussion.

It is valuable in stimulating an interest in a situation because the members of the group identify themselves by word and emotion with the character being played. By being "someone else" a person can talk about himself or speak his mind in an indirect way. He is also free to act emotionally as if in a real life situation. The group identifies with these emotions just as they do with the word spoken. As the actors or the group take part in the drama, they are able to remember more about the situation than when just talking about it.

To set up role playing in a group, first describe the situation to the entire group, then choose as many persons for the role playing as there are characters in your situations. Give the participants a chance to get together to decide how to start the play and what points to emphasize. At the time the players are doing this, the rest of the group is assigned to watch one player. The critical observation of the group is assigned to watch one player. The critical observation of the group helps to bring about greater learning. Role playing should be continued long enough to enable members to understand the points that will help in reaching the goal. After the playing has gone on long enough to do this, possibly 10 minutes, discuss with the group what were the good and poor points in the action. The participation of the audience-observers constitutes the real essence of the role playing as a discussion technique.

This method may be used to define or diagnose a problem; sometimes it can be used to make a plan of action.

2. Group dramatics.

This is a discussion technique best fitted for use in small groups. The discussion usually follows a scene enacted by the group to stimulate thinking of the group for action. Each person in the group acts out an assigned character.

Group dramatics differs from role playing in that several people may take the part of the same character. Instead of having only one character for each speaking part, each member of the audience identifies himself with one of the characters.

This might be used as a problem-solving device to present subject-matter material, as in presenting a specific problem to be discussed.

3. Group discussion--decision.

This is one of the newer methods of group discussion in that it motivates the group to reach a decision. Each participant is responsible for helping to reach and carry out each goal.

Group discussion leading to decision is good because average group judgment is usually better than individual judgment. A group is more likely to accept a good suggestion than reject it. There is a minimum of four steps:

- (1) Group discussion--the leader stimulates, gives information, but keeps in the background.
- (2) Group decision--from discussion, group agrees on a definite goal.
- (3) Group commitment--the group acts to carry out definite action to put into specific goals agreed upon by the group.
- (4) Group action--each individual desiring status within the group carries out the proposed action.

This method may be used with groups numbering less than 30. It may be used in program-planning--deciding on food or nutrition projects that are most needed in the county, and planning county-wide activities to promote better nutrition.

4. Buzz sessions.

In some situations, a group leader will find useful procedure known as a "buzz" session, or "conversation huddle." Such sessions are organized as follows:

After stating clearly the question to be discussed, the chairman instructs the members to seat themselves in groups of six each. This usually can be accomplished in a few minutes by having the first three persons on the left end of the first row turn their chairs around, or turn themselves around in their seats, to face the other three persons seated.

5. Panel discussions.

Another method useful in starting group discussion is the panel. This may be used with either large or small groups.

Panel members should prepare--Though the discussion should not be rehearsed, a preliminary meeting of the moderator and the panel members is helpful. It gives the moderator an opportunity to work out with the panel the procedure to be followed, so that everyone knows in advance what is to be discussed. Without such an explanation, panel members might think that they are expected to give speeches, rather than to take part in an informal conversation; or, they might go to the other extreme and forget the line of argument entirely, with the result that the discussion gets nowhere.

Different points of view are needed--Panel members should be selected carefully some time in advance of the meeting. They should represent as much variety of background and opinion as possible. A sense of humor helps to get ideas across. At the time of selecting the panel members, the moderator should discuss the topic to be considered with each person, as well as each person's contribution. This helps each panel member better to understand what his contribution is to be.

In a panel discussion the moderator and four to six selected persons sit around a table in a semicircle facing the audience. After introducing the panel members to the group, the moderator gives a brief statement announcing the problem and presenting a few facts about it. He then leads the panel in an informal conversation of the issues. He summarizes frequently so that the issues can be kept clear.

Members of the audience may take part during the discussion or they may wait until the panel members have presented all their points.

6. Symposium.

This method gives each individual participating an opportunity to make his contribution. Each symposium member reports in turn, making the discussion a more formal type. The leader introduces the group and guides presentation. This method might be used to present nutrition information on a radio program; to get views of different groups; preceding a buzz session to bring out ideas for discussion; as a means of summarizing the thinking of smaller groups formed by dividing a large group into smaller groups.

7. Forum.

This is another of the less formal types of discussion. In it any number may take part. In addition to participation by the group making up the forum, questions and comments from the audience are welcomed.

The leader announces the rules, then enters in only as need arises. Subject may be introduced by one or more brief speeches. Volunteers then take the floor and observe the time limits set up. Speakers follow no set pattern.

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Visual Aids

Visual aids are teaching tools that help to increase the effectiveness of teaching. Through proper use of visual aids, students can learn up to 35 percent more in a given period of time and remember up to 55 percent longer. The combined use of lecture and visual aids is more effective in influencing adoption of better practices than the lecture method only. Visual aids have an even greater importance in informal education than in formal education. Here are some suggestions for effective use of visual aids:

Blackboard

The blackboard is probably the most generally used visual aid. If properly used, it may be of tremendous value in all kinds of teaching. The following rules for using the blackboard should definitely increase its effectiveness as a visual aid:

1. Don't crowd the blackboard.
2. Make the material simple.
3. Get together everything you need for the blackboard ahead of time.
4. Check lighting. Avoid glare.
5. Use colored chalk for emphasis.
6. Print and draw on a large scale.
7. Keep the blackboard clean.
8. Erase all unrelated materials.
9. Prepare complicated illustrations beforehand.

Bulletin board

An effectively used bulletin board is much more than a piece of cork or a burlap cloth upon which odds and ends are placed. It may be used to arouse interest and to develop subject matter. To make the bulletin board effective:

1. Use the bulletin board often.
2. Use pertinent illustrations.
3. Arrange pictures in an orderly and interesting manner.
4. Use color harmony and balance.
5. Change material frequently.

Food and food models

Food, raw or prepared, is often more effective than any other visual aid. When it is not practical to use actual food, food models may be used.

Photographs and other pictures

Without pictures the world today would not be so meaningful as it is to most of us. Pictures may be used to--

1. Arouse interest.
2. Introduce new subjects.
3. Illustrate specific steps in the job.
4. Review units of subject matter.

To use photographs and other pictures effectively

1. Utilize the countless number of excellent pictures and photographs available.
2. Mount pictures on a suitable background.
3. Take photographs that tell a story and show action.
4. Show only large pictures to a group.
5. Point out important points in a picture
6. Use pictures with other related teaching aids.
7. Photograph during field trips to facilitate follow-up study.

The flannelgraph

The flannelgraph is another type of inexpensive visual aid that is easy to make. It works on the principle that some materials have an affinity for each other. Pieces of flannel, felt, duvetyn, sandpaper, and similar materials will stick to a background of flannel without an adhering agent. This is true even when the background is in a vertical position. If scraps of any one of these materials are pasted or rubber-cemented to the backs of photographs, drawings, lettering on medium-weight paper, or illustrations clipped from magazines, they will cling to a large piece of flannel until they are removed. (See references, page 41).

Flash cards

Flash cards are small compact cards approximately 10 to 12 inches square that may be flashed before a group to bring home an idea. They may be used effectively in a large number of situations and with other training aids.

The technique to be employed will depend upon the specific problem or subject that is being presented. Be sure to expose each card so that everyone in the group can see it.

Charts and graphs

Charts and graphs help to make dry facts more interesting and understandable. There are the flow chart, table chart, process or distribution chart, and slide or strip-tease chart. (See references, page 41).

Graphs are effective tools for making comparisons and contrasts. Those that are involved or difficult to read are of little value. A good graph requires little explanation and tells its story at a glance.

The four types of graphs are the bar, pie or circle, line and pictorial. Bar and circle graphs are the ones most easily understood. (See references, page 41).

Posters

A poster is a picture or drawing designed for display to convey a message or idea in one glance. Posters with an emotional appeal are more effective. One that shows a realistic picture will be better understood than one showing a symbolic picture. A good poster size is 22 by 28 inches or 44 by 18 inches. It may utilize charts, graphs, diagrams, maps, pictures, cartoons, or anything that will help to present the facts. Posters may be made or acquired from various sources. Use an easel or other suitable device to display posters so they may be easily seen.

Exhibits

The exhibit can arouse interest, reach large numbers of people, and influence them to change their practices.

The following may be used for setting up different types of exhibit:

1. Contrast and comparison, to help people become fully aware of a bad situation and make them want to do something about it, example: Malnourished and normal rats.

2. Related series of panels or a booth, to show steps in a process. Example: Steps in preparing food for the freezer.

3. A concealed display to arouse interest. Example: Lighting up slides.

4. Miniatures and enlargements. Example: Model kitchens.

To increase the effectiveness of an exhibit--

- (1) Place it where it is certain to be seen.
- (2) Have a message that can be seen at a glance.
- (3) Use short, simple, but legible labels.
- (4) Use color to add interest and attractiveness.
- (5) Have one main idea.
- (6) Consider the prospective audience.
- (7) Use good lighting.

Field trips

A field trip or tour, is a planned visit to a place that can provide educational experiences. It may influence attitudes and it can arouse interest.

To increase the effectiveness of a field trip--

- (1) Plan ahead with the group.
- (2) Discuss problems the trip can help to solve.
- (3) Plan your schedule carefully, so that it will be educational.
- (4) Make sure the guide is given information about the type of group and purpose of the trip.
- (5) Follow through with discussion of observations made on trip.

Motion pictures

A motion picture can present a pictorial story, with or without sound. It can arouse interest and emotion. It can influence attitudes, insights, and relationships. It can promote understanding of new concepts outside the range of one's own experience. It can draw groups.

To increase the effectiveness of motion pictures--

- (1) Get acquainted with the best films available on specific subjects.
- (2) Keep a file of information about desirable films.
- (3) Preview films ahead of time.
- (4) Use teaching guides that are designed to accompany film, when they are available.
- (5) Tie in the film content with the lesson to be taught.
- (6) Prepare the group through introductory discussion.
- (7) Follow up the film with discussion of the lesson taught by the film.

Slides and slide films

Slides and slide films are still pictures that may be projected for group observation. They can be used effectively in teaching a series of complex steps; they can provide for audience participation; they may be used in a variety of ways to arouse interest or supply supplementary information.

To increase effectiveness of slides and slidefilms--

1. Use slides to tell one story.
2. Add needed information verbally.
3. Select slide films with the same care you would use in selecting motion pictures.

Demonstrations

See page 41.

Television

See page 41.

Check list for selecting visual aids

A variety of visual aids can make teaching more effective. The following checklist can help you in the selection of visual aids that are suitable:

	<u>Yes</u>	<u>No</u>	<u>Doubtful</u>
1. Does the visual aid contribute to the learning of the group?	_____	_____	_____
2. Does it help the group to reach its objectives?	_____	_____	_____
3. Does it give an accurate picture of the ideas it presents? (Are the facts correct? Is the information up-to-date?)	_____	_____	_____
4. Is it adapted to the age, intelligence, and experience of the group?	_____	_____	_____
5. Is it worth the time, effort, and expense involved?	_____	_____	_____
6. Is it in good condition for use?	_____	_____	_____

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Other Mass Media

The time available for personal contact is limited, therefore, mass media must be used to get information to large groups.

The news story

The news story is one means of disseminating information. Select the phase most important to the reader. This is called the feature. The first paragraph gives the answers to who, what, when, where, how, and why. The details go into the body of the story. News stories should be written in the third person. To make the task easier, follow these points:

1. Who. Get the complete who, have it correct, identify and use initials at first mention of the name.
2. What. Use the concrete definite idea.
3. When. Use the date, day, and hour in an advance story; only the date in a follow-up.

4. Where. Use the name of the town, building, and room in an advance story; only name of the building in a follow-up.
5. How. These are very important in the nutrition story. In the general run of stories the "how" and "why" are frequently implied.

News articles should present new and timely information. They should have personal and community appeal.

News articles should be used by specialists to--

1. Publicize timely information and recommendations.
2. Promote interest in the nutrition program.
3. Advertise meetings.
4. Follow up and summarize results of demonstrations and meetings.
5. Report the use of recommended practices by individuals, families, or groups.

Circular letters

Circular letters are quick and inexpensive means of reaching special groups. They have the advantage over the news story in that they make a direct appeal.

The salutation is important in a circular letter. It should be appropriate and in keeping with the subject. The first sentence should arouse the interest of the reader.

A good and appropriate illustration related to the subject matter can add interest. The circular letter must also be attractive typographically.

There are two kinds of circular letters, the announcement and the subject-matter. Circular letters should be limited to one page. If detailed information is to be given, it should be put on a separate page.

Radio

Radio as a medium for spreading information is not in competition with newspapers. Radio makes it possible to reach people in their homes. It gives the news while it is new.

Who listens?--Farm women listen more than their men folk, and in general they get ideas from radio and use them more frequently than the men do. Farm women listen more and follow more suggestions than nonfarm women do. Age has little influence on the listening habits of homemakers.

From the Massachusetts study on organization it was found that 15 percent of all homemakers listened, whether they lived in towns that had active home demonstration work or not.

Any preferred time?--No one time seems best. Suggestions from homemakers include from 6 a.m. to 3:30 p.m., with noon having a slight edge.

What women say they want,--In the field of foods and nutrition, women want news of their local clubs, new recipes and ideas on meal planning, and retail market news, especially on poultry and eggs.

How they want it.--Homemakers say they like to have the programs dramatized or built around dialog. They also like straight subject-matter talks, if they are not too long.

When radio is used to supplement project work, leaders say that radio instruction reinforces their teaching and gives them community recognition and authority.

When radio is used alone as a teaching method, listeners acquire a substantial amount of learning, but when a leaflet is added, the learning is increased. If radio and a leaflet are used, in addition to help from a leader, the learning enjoyed by the listener is increased still more.

When homemakers are asked where they get their information, radio always rates high as a source. Of the women who attribute ideas to radio, 8 out of 10 say they have incorporated some of the ideas in their work.

Of the women listening to radio programs, one-fourth take some action such as ordering bulletins, having pressure gauge tested, or attending an event.

Television

See page 41 for suggestions.

Reference

How To Make Circular Letters Attractive. Margaret M. Maselin. U. S. Dept. Agr. Ag. Handbook 26. 15 pp. illus. Washington 25, D. C. July 1951.

Planning Programs

In any cooperative extension program, whether it is national, State, county, or community, there are certain basic principles or concepts to which a good program must conform, if that program is to have a marked effect, either temporary or long-time upon the lives or actions of the people.

The following are guides in developing a program:

1. Base the program upon the recognized needs and interests of the people themselves. It should develop out of their daily lives and experiences rather than be superimposed upon them.
2. Consider all the known facts that ~~may~~ have a bearing on the program.
3. Define objectives at all levels. These objectives must be thoroughly understood by all those who plan and execute the program.
4. Consider the needs and interests of the entire family. The program should be comprehensive enough to embrace all age groups, creeds, races, and economic levels. It should also recognize the influence of related community, State, national, and international problems.
5. Keep the program flexible, so that it may be altered to meet the changing needs of the people. It must meet short-time and long-time situations and special emergencies, such as civil defense.
6. Start where people are. Programs, like sermons, are too often above the heads of the people concerned. Groups can and should advance, but they must start from their present situations. Nutrition principles should be translated into foods and everyday meals.
7. Help people to broaden their interests, attitudes, and concepts in addition to giving them information.
8. Teach people to help themselves. Otherwise, the value of the program will be only temporary. Extension should help ~~to~~ provide the tools and assist in their effective use, but only as a means for teaching.
9. Make maximum use of local leaders in planning and carrying out the program. Their effective training should be a definite part of the plan.
10. Use organization as a tool to accomplish objectives. Organization should never be an end in itself. Simplicity of organization should be maintained along with full opportunity for participation in the program, not necessarily in the organization of the greatest number on the local level.
11. Evaluate frequently. Nothing is more fatal than insistence on a program today that meets yesterday's needs.

Nutrition programs

The interests and needs of homemakers should be used as a basis for planning programs of work in counties. This is not easy to accomplish. Check sheets, questionnaires, surveys, and meetings have been used as devices. However, programs planned often represent temporary interests or the interests of a handful of women who talked most and loudest at program-planning meetings. Effective program planning is a year-round job.

If program planning is to be a sound educational activity, then those responsible for it need appropriate training to help them function effectively. Those who are to be responsible for program planning should be carefully chosen. They need help in understanding the basic educational principles that are involved. They need a knowledge and understanding of the research that has a bearing on the program. This information comes from State universities and colleges and from agencies and groups working on a national basis.

Some of the responsibilities and activities in which program planning leaders might need training, are:

How to lead discussion.

How to observe what homemakers' needs, interests, and attitudes are.

How to recognize basic problems and needs in contrast to immediate and temporary interests.

How to note problems raised at leader-training schools that may indicate the need for additional training.

How to interpret local economic health and social situations.

How to take advantage of agent, specialist, and other sources of help in determining subject-matter trends, economic and social situations.

How to keep a record of suggestions and to organize and interpret material for presentation at program-planning meetings.

How to set objectives for prospective programs.

The Southern Regional Consumption Study.--This food study is an example that could be used effectively in program planning. The States in this area need to consider how the home food supply can be improved with these families and how the Extension Service can help them. The nutrition specialist needs to interpret this information in order to make her teaching more effective. (See Family Food Consumption in Three Types of Farming Areas of the South--I. An Analysis of 1947 Food Data. 142 pp. Institute of Statistics, N. C. State Col. June 1950).

Training Agents To Teach Foods and Nutrition

In-service training meetings

The specialist trains a large number of agents in a short time. Such training may be planned as the need arises or as part of the yearly program. It may be given at State, district, or other group meetings. Material may be presented by extension subject-matter specialists, the resident teaching staff, commercial demonstrators, and others. It should be based on the needs of the agents. It may include--

1. Training new agents in subjects such as food preservation, gardening, and poultry, in which they have had little training.
2. Bringing agents up to date on recent developments in the field.
3. Making available new subject matter, methods of teaching, and suggestions for using the methods.

Subject-matter training

Subject-matter training is best done with groups of agents. Workshops may be suitable for certain types of subject matter.

The subject matter should be gone over slowly and thoroughly. Specialists should work out with the agents details for the method of conducting the leader-training meeting. They should help the agents to know how to adapt material for their county. This might include preparation of a guide or outline and recipe sheets for use by leaders.

Visual aids and materials for leaders to give to members might be prepared and assembled. Agents might be given an opportunity to participate in food preparation, discussion, and other activities. Agents should understand the purpose of the project. They should see the relation of this unit of work to the over-all nutrition project. Suggestions should be made for reports and evaluation.

Special agent conferences

Both the agent and the specialist should assume certain responsibilities. The agent should plan exactly what is wanted from the specialist and send her full details ahead of time. No other work should be planned during the time the specialist is to be with her. Arrangements should be made for a quiet conference place or other necessary facilities.

The specialist should have an understanding with the agent as to the time allotted to her. She should be prepared with materials needed to assist the agent.

Suggestions for specialist-agent conferences:

1. Help to get the background information and interpret it.
2. Assist in planning the long-time program, the annual plan of work, or in analyzing the plan already made.
3. Hold sample leader-training meetings.
4. Assist with county-wide activities, either in planning or by participation in program.
5. Assist in planning for leader training, method demonstration for adult and 4-H Clubs.
6. Assist in planning or writing news articles, radio scripts, and circular letters.
7. Assist in planning exhibits, fairs, and achievement-day activities.
8. Help with the procedure and methods of conducting meetings.
9. Check with the agent on materials needed in the files.
10. Suggest use of materials mailed from the State office for keeping the agent up to date.
11. Discuss with the agent how to reduce her load.
12. Help the agent to evaluate the program and make plans for the follow-up.

Keep agents up to date.--The specialist should make every effort to keep the agents up to date on the following:

1. New research in the field and its implications for teaching.
2. Research findings that should be adopted.
3. Extension studies in the field of nutrition and their evaluation and use.
4. New foods and their uses.
5. New materials available from commercial concerns, and their evaluation and use. This includes charts and leaflets.
6. New films, their evaluation, availability, and use.
7. Other new teaching aids and their use.
8. New reference materials and their use.

Help to make the agent's job easier.--

1. Discuss the best ways to plan an effective program.
2. Help with ways of evaluating the program.
3. Prepare a "keep up-to-date" circular at intervals.
4. Prepare timely circulars for use by agents.
5. Show new materials at group meetings of agents.
6. Prepare project materials--for both adults and 4-Hers--using new ideas.
7. Revise outdated materials.
8. Prepare timely news items, radio spots, scripts, and tape recordings for distribution by the editorial office.
9. Invite resident and experiment-station personnel to participate in meetings. Point out to the experiment station the needs of the people in the State.
10. Help the agent to plan how she herself can keep up to date.
11. Prepare or obtain kits and other visual aids and keep them available for loan to agents.

12. Suggest how (a) "movies," (b) slides or slidefilms, (c) charts and graphs, and (d) flash cards, pictures, and radio may be used effectively.
13. Arrange to have commercial materials mailed directly to agents who might use them.
14. Suggest ideas for educational exhibits.
15. Make suggestions for club demonstration.

Training Leaders for 4-H or Adult Groups

At a leader-training meeting we need to demonstrate how to teach as well as what to teach. Leader training is concerned with the development of people as well as with skills and techniques and subject matter. In training leaders, you are working with people as well as with the scientific subject matter of foods and nutrition. A friendly informal atmosphere helps to promote learning.

Consider the leaders:

1. Give inspiration as well as training. Help the leaders to develop their potential capabilities, and a feeling of responsibility.
2. Help them to understand what is expected and how to carry out their jobs. (Leaders may handle local arrangements and publicity, develop community interest and activity, take back information to groups, and check the spread of practices.)
3. Help them to understand the rewards of being a leader--personal development, social opportunity, new friends, and new learnings.
4. Encourage leaders to work in pairs so that they supplement each others' abilities.
5. Provide for recognition of leaders' contributions.
6. Do not try to teach too much at one time.
7. Provide a comfortable room, where everyone can see and hear. For a successful discussion, seating arrangement is important.

Careful planning is important:

1. Plan the meeting to hold the interest of the group. Meetings that drag result in lagging of attention, diversion of interest, boredom, and gossip.
2. Provide an opportunity for sociability. It may be a short recess, serving of refreshments, or a meal.
3. Plan the training meeting with the local agent. Be sure that the agent knows what is expected well ahead of time.

4. Adapt arrangements to local situations, the facilities, numbers to be trained, current trends, interests, needs, and economic situation.

5. Arrange for supplies, equipment, visual aids, illustrative material, and leaflets for distribution.

Set up your objectives:

1. Keep in mind the needs, interests, and abilities of the group. A knowledge of human hopes, desires, and motives can do much to help promote effectiveness of good teaching.

2. State your objectives clearly. This helps in planning and evaluating a project.

3. Goals for each meeting should be specific and attainable. Consider the importance of better family living rather than merely of developing skills and techniques.

4. Skills and techniques may be used to promote broader objectives.

5. Individuals are interested in what nutrition will do for them personally.

Decide what you are going to teach:

1. Know what you want to teach, and what the homemaker or 4-H Club member wants to learn.

2. Teach only two or three major points. Slant these to the interests and needs of the group.

3. Use a practical approach; avoid textbook and academic attitudes. Don't ride your pet hobby.

When you train leaders:

1. Use the best method for the job.

2. Vary the methods used. There is no one method adapted to all types of training.

3. Simplify methods so that leaders are able to use them effectively.

4. Supplement leader-training meetings with other material or the same subject through news releases, radio, and the like.

5. Give the leader practice in leading if possible. We learn to do by doing.

6. Adapt the method to fit the situation and the group. Be versatile.

7. Support the method with the best available tools for arousing interest.

8. Instruct leaders in how to prepare follow-up reports.

Types of training meetings:

Select the best method for your subject. Use various tools.

1. The demonstration. Tell how the demonstration was built.
For example, discuss Meat Cookery.

2. The work meeting (with all members participating). Discuss.
(Train for community meals.)

3. Role playing, followed by discussion. (Used in teaching child feeding.)

4. Discussion leading to group decision. (Use of powdered milk.)

5. The demonstration-work meeting. (Use of pressure saucepans.)

Provide take-home materials:

1. Supply leaders with accurate up to date take-home materials.
Give them enough copies for their groups.

2. Include points that are to be made. Make them appealing and easy to use and as foolproof as possible.

3. Keep in mind that most leaders do not spend a great deal of time preparing for meetings.

4. Furnish leaders with specific but adaptable guides to assist them in planning and preparing for meetings.

5. Provide them with information for answering questions.

6. Use illustrative materials that can be made available to leaders.

Guide to effective training:

1. Use an interest-getting introduction.

2. Build on experiences of the group. Start where they are.

3. Show the relationship between what they know and what is being taught, especially in a series of meetings.

4. Stress the important points repeatedly.

5. Give the material in short units.

6. Show leaders how to apply principles and how to adapt information to their situations.
7. Help leaders to understand that their job is to pass on information accurately rather than to make judgments based on their own ideas and experiences.
8. Provide an opportunity for actual participation by each leader.
9. Provide an opportunity for an exchange of ideas.
10. Encourage leaders to delegate jobs in their group meetings.
11. Suggest local sources of additional help such as the local library and trained people in the community.
12. Allow time for questions.
13. Summarize the "why," "what," "how," "when," and "who" of the specific unit.

Evaluating a Nutrition Program

Evaluation of a nutrition program would mean determining the strength and weakness of values of nutrition teachings.

Evaluation helps us to see if objectives are being reached and if desirable changes are taking place.

Why Evaluate?

- To determine progress with any given activity or job.
- To know if we are accomplishing what we set out to do.
- To know the effectiveness of certain methods or activities.
- To give us a feeling of satisfaction, accomplishment, confidence in ourselves and in our service.
- To provide us with information for reports to the public.

What to evaluate.--Three steps must be taken to evaluate any program:
(1) Set your objectives, (2) gather evidence, and (3) analyze the evidence. To evaluate an over-all nutrition program in a State would be difficult. However, it might be evaluated in such parts as:

<u>Objectives</u>	<u>Result in terms of people who--</u>
Agent training	Change behavior
Leader training	Develop skills
Meetings	Gain knowledge
Teaching methods	Change attitudes
Teaching materials	

Types of evaluation.--

There are three types of evaluation and many ways of collecting evidence.

Informal evaluation.--This is the everyday evaluation of our work that we do continuously. Most of our evidence comes from:

Observations	Farm and home visits	Discussions
Office calls	Meetings	Local-leader reports

More formal evaluation.--This is a systematic way of evaluating phases of our work. Much of our evidence comes from--

Report forms that farmers, homemakers, or leaders fill out.

Mail questionnaires.

Attitudes, opinions, or interest checks used at meetings.

Formal evaluation studies.--This is a more scientific type of evaluation than one can usually do alone. Much of the evidence comes from surveys. Surveys can best be done with the help of specially trained personnel.

Results of evaluation can help you--

- To identify needs for further efforts.
- To plan future programs.
- To set up objectives.
- To improve teaching methods.
- To improve teaching materials.
- To report to the public.
- To prepare annual reports.

Sample evaluation outline

The objectives in evaluating a corn-meal enrichment program should tell who is going to do what.

In a Georgia study farm families in six pilot counties were taught to know the value of enriched cornmeal and to use it.

Agents were trained to use effective methods in giving nutrition information to the farm families in the six pilot counties.

What was taught.

Specific things that were taught to reach objectives:

- The food value of whole-grain corn.
- What parts are removed in grinding, and why.
- How corn meal is enriched.
- The nutritional value of enriched corn meal.
- The use of enriched corn meal for making bread, to show that same recipes are used and that quality and palatability are unchanged.

How it was taught.--Teaching methods used:

Leader-training meetings were given in pilot counties.
Pamphlets and recipes were given leaders at method demonstrations.
Movies and filmstrips were shown.
Publicity was given through news stories, circular letters,
and radio.
Method demonstrations were given by leaders.
Contact was made with distributors and millers.

Evidence to look for.--To learn whether people learned what was taught
and what they did as a result:

Number of people attending leader meetings.
Number of people attending community demonstrations on enriched
corn meal.
Number of people who saw the movies.
Number of people who read news items and circular letters, or
heard radio announcements about enrichment.
Number using recipes given out.
Number of families using enriched corn meal.
Number of families who knew the value of enrichment.
Number of women who have consulted the miller.
Number of those who have requested enriched corn meal, but could
not obtain it.
Method reported to be effective in causing families to change to
use of enriched corn meal.

Sampling the population

1. Defining the population (tell who you expect to do something
about what you were teaching.)
 - a. All farm families living in the six pilot counties of Georgia.
 - b. Only people living on farms or in towns of less than 2,500
were included.
2. Selecting the sample (selecting a smaller number from the whole
group in such a way that answers would apply).

Maps and statistics were sent to the Division of Field Studies
and Training, Extension Service, United States Department of Agriculture,
Washington 25, D. C., where areas to be sampled were selected.

Questions to be asked that will give desired evidence:

1. Name _____ Address _____ Age _____.
2. No. in family _____, adults _____, children under 20 living at home _____.
3. Do you live on a farm? _____.

4. Do you own your farm? _____, rent _____, share cropper _____, other _____.

5. Does your entire income come from the farm? _____, part _____, none _____.

6. Do you produce your own corn? Yes _____. No _____.

7. Do you have it ground? Yes _____. No _____.

8. Have you attended a meeting where the enrichment of corn meal was discussed? Yes _____. No _____. How many? _____.

9. If "yes" did you use recipes given at a meeting you attended?
Yes _____. No _____.

10. Did you see the movie Making a Good Food Better? Yes _____. No _____.

11. Did you read in the newspaper about the campaign to enrich corn meal? Yes _____. No _____.

12. Did you hear a radio program on enrichment? Yes _____. No _____.

13. Did you buy any enriched corn meal? Yes _____. No _____.

14. Did you have your home-ground meal enriched? Yes _____. No _____.

15. Did you request your miller to sell enriched corn meal? Yes _____.
No _____.

16. What do you think about corn bread made from enriched corn meal?
Do you think it tastes same as unenriched? _____. Poorer _____.
Better _____.

17. What is the value of enriched meal to your health? (What does it
do for the body?) _____

18. Can you tell what caused you to start using enriched corn meal? _____.
What was it? _____

Test the questions before sending out interviewers.

Ways to get and record results in tabulation, analysis and interpretation of data:

1. Obtain list of those attending from leaders.
2. Obtain number of those who saw film from theater.
3. Interview, on area sample basis, by assistant nutritionist especially employed to conduct the campaign.
4. Tabulate on a large sheet, so record will be easier to break down.
5. Break down and interpret summaries.

Ways to use findings:

1. Determine the best methods to use in a State-wide campaign on enriching corn meal.
2. Determine the effectiveness of methods used in changing the attitudes and practices of farm families in the six pilot counties.
3. Give direction to further efforts to improve diets of farm people.
4. Acquaint the public with findings and progress made to date on the enrichment program.
5. Get the cooperation of many groups and agencies to push together for better nutrition.

Follow-up work:

1. Take a random sample of the rural population and repeat this survey every 2 years until you feel that the desired results have been achieved.

Obtaining reports from homemakers that will help us to analyze the effectiveness of our teaching.

Extension agents or specialists in many States have developed small questionnaires or report forms which they use to collect information regarding the adoption of practices. These report forms are designed to be filled out by persons who participate in extension programs in their subject-matter fields. Some of these questionnaires are to be filled out by the rural families themselves. Some are to be filled out by the agents or by leaders for their groups.

The first main problem has to do with the questions asked. To get an idea as to what the rural women would include, the phases to be checked on might be set up by the specialist in cooperation with the agent and leaders at the teaching meeting. Under this plan, at the end of each meeting taught by the specialist, agent, or leader there would be a short discussion of "How are we going to measure today's work on the subject we have been talking about?" Phases suggested might have to be worked into appropriate questions later on. In any case, the questions on the report forms should be carefully worded in order to make them concise and clear. Here are some things that should be considered when report forms are prepared:

Instructions as to how to get records are helpful.--When leaders are to collect the information, there should be some brief instructions for them, giving suggestions on how leaders can obtain the records. When records are obtained by mail, motivation to return the report forms is especially important.

Example: Instructions to leaders.--The food leader should get the following information from the members in her group soon after the last food meeting she holds. The questions may be asked the whole group and hands raised, or the leader can get the answers individually from the members. In either case, record the total number reporting. A report of the work accomplished helps a leader to measure the results of her own efforts and helps the home demonstration agent to make her annual report.

Report forms should be provided for everyone included in the sample, even though some of them may have only "No" answers. The record of the total number reporting is important. There is value in the answers of those who do not follow the practice, and in the answers of those to whom the question does not apply. Part of the training of leaders and rural groups to participate in the measurement of the effectiveness of extension teaching should stress the value of a "No" answer, or a "don't know" answer. The report form should provide specifically for these answers, instead of providing only a dash after the question. Use this form:

Example:

Have you ever attended an extension nutrition study group before?

(a) Yes _____. (b) No _____. (c) Don't know _____.

Face data--When getting homemakers to answer questions about their food practices, you may want to ask them for some additional information about themselves or their families that will help in interpreting the answers on food practices. Such information is called "face data." Exactly what questions of this type are included may depend on the purpose the specialist has in mind in planning the entire report form. Generally, such questions as these have been found helpful in interpreting information on family food practices.

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RECENT TRENDS IN FOODS AND NUTRITION

The trends selected and presented here are those that appear to have significance for the families reached by extension programs. No attempt has been made to summarize all the recent work in foods and nutrition or to present the work in detail.

Family Nutrition

The chief concern of the extension foods and nutrition program is with family nutrition. The family diet should be planned to take care of the needs of all members of the family, even though some members may need special diets. The homemaker may not have time to prepare a separate diet for grandmother and for the 3-year-old and a reducing diet for herself, but all eat from the same table. If she plans a well-balanced diet, it can be adjusted to the needs of all members of the family by making minor changes; but the homemaker will need to understand the changes necessary. She also needs to keep her nutrition knowledge up to date. Above all, she should remember that meal time should be pleasant. The family should enjoy its meals.

People are apt to accept what the specialist says as authoritative. This puts the responsibility on you, the nutrition specialist. Scientific information should be translated into simple terms. The National Research Council (see references, page 59), has recommended daily allowances of food elements. These have been prepared to allow for the food needs of the average American. Some may need more, some may need less, so that a margin of safety has been allowed.

Recommendations of our National Research Council are more liberal than those of similar organizations in other countries. The question has been raised by other countries as to whether or not we are too liberal in our standards. According to Sherman the higher levels of important food values, such as protein, calcium, vitamin A, and riboflavin, are needed for vigorous living.

Research studies have shown that the human body has some ability to adjust to unfavorable diets. According to Keyes of the University of Minnesota, metabolism rates fell 30 percent on a semistarvation diet; the heart beat more slowly, and the body movements were more conservative. This indicates that nature makes every possible effort to help us survive, but this does not mean that the body functions at its best on a suboptimal diet. Many people are on the borderline between good and poor nutrition.

Let us see what some of the studies made in the last 5 years show about how well farm families are eating, nutritionally speaking. In the summer of 1945, two counties were studied by the Bureau of Human Nutrition and Home Economics, one in Georgia, and one in Ohio. Calculations of the families' diets showed that 28 percent of those

in the Georgia county met current allowances of the National Research Council for each of the nine dietary essentials measured, but compared with these allowances, 40 percent were very low in vitamin A, a fourth in calcium, and some were very low in vitamin C or other nutrients. The Ohio diets were better, but the same three nutrients were the ones most often low. The counties surveyed in this study were rural areas where average incomes were rather low.

Much valuable information about farm diets in the South will come from a study now in press, in which five State experiment stations and the Bureau of Human Nutrition and Home Economics cooperated. Family food consumption in three types of farming areas--cotton, tobacco, and general farming--was studied in the late winter and early spring of 1948, a season when farm diets presumably are at their worst. (See references, page 59).

In the three areas studied, farm diets were again more frequently and more seriously below recommended allowances of calcium, vitamin A, and vitamin C than in other essentials measured. Among the lower economic groups, diets were often extremely low in protein and riboflavin.

It looks as though farm-family diets are probably somewhat better on the average than they were, say, 10 years ago; that although out of any group studied there are considerable numbers whose diets could be improved, critically low levels are less often found.

Factors affecting the quality of diets are the same as for city families--income, family size, and food habits. For farm families, the most important single key factor to better diets is probably the availability, present or potential, of milk, eggs, meats, vegetables, and fruits from the farm.

The "basic seven" is a guide for translating the recommendations of the National Research Council into common foods. In using a tool such as the basic seven, individual adaptations should be made for local situations. For example, the importance of having a source of vitamin C for everyone should be stressed rather than "orange juice for everyone." If food is used as a source of vitamins there is little or no danger of an overdose. In using vitamin concentrates it does not follow that if some is good then more is better.

Recent research studies have emphasized the need for liberal amounts of protein. Protein plays an important part in many body functions, such as tissue building; formation of enzymes, hormones, antibodies, and hemoglobin; recovery from burns and healing of surgical operations; protection of the liver from toxins. Better use of protein (greater nitrogen retention) occurs when some animal protein is included at each meal. The protein should be distributed among the three meals of the day. One way of getting 60 grams of

protein in the day's food would be to include the foods listed in the following tabulation. (Sixty grams meets the NRC daily requirement for a woman.) Although the studies show that most families at the better economic levels get enough protein, this does not mean that the homemaker always eats her share. Sometimes she gives it to other members of the family and sometimes she is just careless about her own diet.

Food	Amount needed	Grams protein
Milk	1 pint	16
Egg	1	7
Meat	1 serving	20
Bread	3 slices	6
Cereal	1 serving	1
Potatoes	2 medium size	6
Vegetables or fruit	4 servings	4
		60

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Family Food Consumption in Three Types of Farming Areas of the South.
Part II. An analysis of weekly food records, late winter and early
spring 1948. (In press.)

Special Problems In Family Nutrition

Nutrition during pregnancy

Every child has a right to be well-born. Studies indicate that nutrition is a determining factor in the child's being well-born. If the mother's diet is inadequate during pregnancy, she may show no marked effects herself, but the baby may suffer. This makes it important to educate mothers in the importance of nutrition in preparation for and during pregnancy and lactation. The pregnant woman needs to understand what she should eat, and why. Protein and calcium are of major importance in the diets of pregnant mothers.

The National Research Council allowances suggested for the latter half of pregnancy are increased by the following percentages: Protein, 40 percent; calcium, 30 percent; riboflavin, 67 percent; and vitamin C, 43 percent.

The importance of a high level of nutrition for human beings during pregnancy has been recognized during the past decade. Bertha Burke (see references, page 61) has done a great deal to prove the importance of a good diet during pregnancy. She conducted a study of 216 women in a Boston hospital. The purpose of the study was to determine the influence of diet during pregnancy on growth and development of the fetus as well as any relationship diet might have with the course of pregnancy, labor, and delivery. Of the women who had a good diet, 95 percent had babies that were in good or excellent condition, and only 5 percent had babies that were in poor condition. Of the women who were on a poor diet, 65 percent had babies that were in poor condition, 27 percent that were in fair condition, and only 8 percent that were in good or excellent condition. All except one of the babies of premature births, that were still-born, had deformities, or died within 3 days, were babies of poorly fed mothers.

William J. Dieckmann, M.D., Department of Obstetrics and Gynecology, University of Chicago, reports observations of the effect of protein intake on the health of the mother and the condition of the baby. (See references, page 61).

Protein evaluation--Protein was selected as the nutrient for evaluation because of the interest in the conflicting evidence reported in relating various levels of protein intake to the health of the mother and baby. Protein was of interest also since it served as a somewhat sensitive indicator of the nutritional intake of minerals and vitamins of the B complex. This is because foods high in proteins, such as milk, cheese, meat, poultry, fish, and grain products, are the major carriers of all these nutrients. Furthermore, protein can be estimated from weighed foods with a fair degree of accuracy.

A preliminary pilot study indicated that the protein intake varied from 55 to 85 grams a day. In order to extend the range and have a sufficient number of patients under observation who were consuming over 85 grams of protein, meat supplements were used. For this purpose 16 varieties of canned meat of excellent quality were made available. Of the total of 602 subjects, 120 consumed more than 85 grams of protein daily.

Sixty percent of the patients consumed less than 70 grams of protein daily on the initial selected diet. Twenty-three percent consumed less than 55 grams. In contrast, the average protein intake covering the over-all period indicated that only 42 percent of the patients were using less than 70 grams of protein.

Better babies.--The babies were rated according to an outline prepared by the pediatrician, who had no knowledge of the protein intake of the mother. A strikingly significant correlation was found between the intake of protein by the mother and the condition of the baby. The percentage of excellent babies increased steadily with increasing protein intake. The relation between protein intakes and the medical ratings of the babies is so strong that it would not occur so often as once in 10,000 times by accident alone.

These findings indicate the need for a high protein diet during pregnancy. Liberal amounts of high quality protein such as meat, milk, and eggs are essential in the diet, so that the protein intake will be as high as would seem desirable from this study.

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Feeding the preschool child

Children normally like to eat. Good eating habits, started early, contribute to well-being throughout life.

The present trend is to help the mother understand the relation between development of the child and its relation to its food habits. The parents' attitude, starting with early feeding, influences the child's future eating habits. Feeding problems may be caused by an overconcern for the child.

Children who enjoy meals with a family enthusiastic about eating rarely become feeding problems. The mother needs to plan for good nutrition before she does the buying. Effort spent in preparing and serving attractive, nutritious meals that have eye and taste appeal is most worth while.

Guides in feeding the young child:

1. Expect the child to eat. Develop an attitude that encourages a good appetite and a liking for all foods.
2. Keep mealtime a happy time. Talk about pleasant things, avoid scolding or reprimanding a child at mealtime. Do not punish a child by making him go without a meal.
3. Offer small amounts of food. Allow seconds if desired. Not all children, even of the same age, have the same tastes or eat the same amounts of food. The amount of food a child will eat varies from day to day.
4. Avoid forcing or coaxing the child to eat. Do not make an issue of one food at a meal.
5. Set a good example for young children. Food dislikes and whims should not be discussed before children. They tend to imitate others.
6. Help children to learn to like a variety of foods.
7. Introduce new foods in small amounts along with familiar foods. Tasting a food rather than the eating of a helping may be all that can be expected the first time.
8. Serve colorful foods attractively.
9. Vary the texture. The child enjoys something soft and smooth along with something crisp and something chewy.
10. Serve mild-flavored, lightly seasoned foods.

11. Serve foods that are easy to eat. The child enjoys vegetable strips, fruit sections, and other finger foods. Serve cut-up foods in bite-sized pieces.

12. Make desserts part of the meal--do not use them as bribes.

13. Allow the child to make a choice. Choices should be between similar foods or of foods prepared in similar ways. Give the child what he has chosen after he makes his choice.

14. Offer foods that are simple and often uncombined. Meat and vegetables may sometimes be more tempting than a casserole dish.

15. Make the child comfortable at mealtime. Use dishes, cups or glasses, and silver that are easy for him to handle.

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Understanding Your Child.

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Food and teeth

Dental examinations have been used as one measure of nutritional status. Wherever we find a high incidence of dental trouble, we consider it has nutritional implications. It's a complex problem; and there is much disagreement among dentists and physicians as to the cause of dental caries. Nutrition is a factor in building good teeth. Calcium, phosphorus, vitamins D and C, and proteins are essential for building and maintaining good teeth.

Much research is under way to find all the factors involved in tooth decay. What part does sugar play? There are conflicting reports from various laboratories regarding the cause of dental caries. Dentists and physicians agree more on the relation of dental caries to sugar than on any other factor. Dr. Shaw of Harvard found that mother monkeys could produce young that would have teeth resistant or nonresistant to acid, depending upon the mother's diet. Sugar was the dominant factor. On the other hand, Dr. Pauline Berry Mack of the Ellen H. Richards Foundation, State College, Pa., reports that well-nourished children given candy did not have more caries than other children. However, children who consume much candy, pop, and chewing gum often do not have adequate diets.

The sale of candy and pop in the school lunchroom is a big health problem, because these foods are so often eaten instead of milk, meat, and vegetables. Children often spend their lunch money for candy and soft drinks instead of eating a good lunch. See Resolution Concerning the Sale of Candy, Carbonated Beverages and Other Confections in Schools, by the Southern Branch, American Public Health Association, and Carbonated Beverage Dispensing Machines in School Buildings, from the Report of the Council on Foods and Nutrition of the American Medical Association.

Suggested teaching devices:

1. Set up an exhibit, using National Dairy Council food-value cards, on coffee, cake, and milk. Give it depth by placing in front of each card, for example, a cup of coffee, a piece of cake, and a glass of milk, respectively.
2. Use a poster showing:
Bacteria plus sugar = Acid.
Acid plus tooth enamel = Tooth decay.

We can break the reaction if we remove the sugar. We would then not have acid production, and so we would not have attack on the enamel.

What part does fluorine play?--Small amounts of fluorine in the water seem to help make the structure of tooth enamel harder and more resistant to decay. It probably is effective in children up to 8 years, but not effective in adults.

Excess amounts of fluorine will cause mottling of the enamel, chalkiness and pitting of the teeth. Recommended amounts of fluorine in drinking water seem to be about 40 percent effective in preventing caries. Fluorine is not the complete answer to preventing tooth decay.

Fluorine is very toxic and should never be added to well water by the layman. Only well-trained technicians should be permitted to add fluorine to city water systems.

Nutrition for later years

Aging is now a problem receiving national attention. In 1900 the life expectancy was 48; in 1950, 65. There are 11 million people past 65 in the United States today. Actual age need not determine physiological age. Many look, act, and feel years younger than their age. The increase in length of life is due to improved sanitation, knowledge of medicine, and nutrition. Geriatrics, the science of dealing with the aging, is a new specialty in medicine.

Sherman has shown by his experiments with many generations of animals, that he can grow larger rats and extend the prime of their life by increasing the milk in their diets.

Bones of older people break more easily and knit more slowly. It is possible that older people may break their bones and then fall as well as break bones because they fall.

Protective foods, such as fruits, vegetables, lean meat, milk, and whole-grain cereals should be included in daily meals; and sweets, carbohydrates, and fats should be kept at a minimum.

Foods high in protein provide for the increased need for repair of tissues. They also furnish important B vitamins which may help to improve the appetite and digestion.

It is difficult to change food habits of older people--"Habit is habit and not to be thrown out of the window at any time by any man--but coaxed down the stairs a step at a time."

Overweight can be a serious problem in later years. The longer the belt line the shorter the life line. The overweight person faces unnecessary health hazards. He is more apt to develop diabetes and heart and kidney diseases. If an operation is necessary the risk is greater.

In feeding older people--

1. Respect their customary food habits. Make only the changes necessary to balance meals.

2. Recognize the importance of a feeling of security, of belonging, of having a place in the family group and in the community; include their diet in the family pattern whenever possible. Older people do not like to be set apart.

3. Consider the need for increasing the number and decreasing the size of meals because of changes in the digestive system.

4. Offer snacks such as milk or crackers to those bothered by insomnia.

5. Serve additional milk; as much as 1 quart each day may be desirable.

6. Serve plenty of meat and eggs. Protein should be distributed through the meals of the day.

7. Serve whole-grain cereals.

8. Serve soft foods and beverages high in food value to those with poor teeth.

9. Serve foods attractively.

10. Consider changes that may cause discomfort:

- a. Avoid foods hard to digest (older people have lower stomach acidity).
- b. Avoid foods hard to chew (because of loss of teeth).
- c. Avoid cooking vegetables with large amounts of fat meat and avoid fried foods (utilization of fat is sometimes impaired).
- d. Avoid foods that have a high amount of roughage (bowels may be irritable).
- e. Avoid foods such as cabbage, onions, green peppers, and cooked, dried beans (they cause flatulence).

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Weight control

Weight control is a problem that needs constant consideration in programs of the extension nutritionists. Merely teaching calories is not enough. In the United States at least 30 million people desire to lose weight, according to the public-opinion polls.

One new approach to the problem of weight control is through group therapy. Some believe that this movement may become as helpful as Alcoholics Anonymous.

Can it be used by Extension? Since it is in the experimental stages we are not sure how practical it may be. However, you may wish to cooperate with your State health department or other groups in some of their experiments on it. Certainly it is a trend that you should watch. The technique is described briefly here.

According to the report of a Pilot Study in the Boston Area on Overweight--A Public Health Problem: The importance of weight control to the total health of the community is becoming increasingly clear to physicians, public health workers, and the general public. Its importance lies in the possible relationship between overweight and such chronic illnesses as diabetes and heart disease. The significance of obesity is also borne out in the statistics which show that life expectancy is greater for those who do not gain above the average weight for their height and sex between the ages of 25 and 30 than it is for those of their contemporaries who become overweight.

It has been demonstrated by several weight control projects that it is common for individuals to lose appreciable amounts of weight while following recommended therapies of diet, medication, etc., but then fail to maintain their weight loss after treatment is discontinued. The literature contains mention of the importance of psychological factors in obesity, and failure to maintain weight losses has been attributed to emotional disturbances.

The wide prevalence of obesity, its importance as a factor in certain chronic diseases, the difficulty of treating it effectively with exercise, diet regulation, and/or medication, and the promise which a psychotherapeutic approach appears to hold in its treatment are some of the considerations which led the Public Health Service to establish its pilot study of the group approach to weight control.

A pilot study in group therapy for weight control was started in the Boston area in the fall of 1949. Its purpose was to determine whether group meetings could be of benefit in helping overweight persons to control their weight. Medical approval of the private physician was required, and nutrition information was made available to the participants. It was thought that individuals would gain better understanding of some of the problems of overeating through a series of group discussions where all members share the common problems of

overweight. Through the support and encouragement of other members of the group and the exchange of information between them they might help each other in adapting to a reduced food intake level.

A series of meetings was planned for approximately 4 months, with weekly session of one to one and a half hours. Fifteen to 20 persons were assigned to each group. Leaders with experience in group psychotherapy were selected for the first groups. During the study, leaders with different orientation and experience were employed for additional groups. Although weight changes reported over the year are not spectacular, it is felt that for persons who have not succeeded in controlling their weight through other means, this method is worthy of further trial and experimentation. If proved successful, it offers a practical method which is readily available to the physician in his private practice and one which is suitable for further adaptation to clinic use.

Of the 102 persons reported here, 47 had lost 10 percent or more of their excess weight by the end of the follow-up period, while 15 had gained 10 percent or more. Forty showed no great amount of weight loss or gain.

Observations derived from this study.--Following are the salient observations noted by the staff, based upon experiences with nine groups comprising the pilot study in the Boston area:

1. There are many people who desire to lose weight, and who have tried various methods without success.
2. The prospect of meeting in groups for group discussion with others who have a similar problem has strong appeal to these persons.
3. During 16 weeks of meetings, the loss of weight among group members compared favorably with losses reported from other types of therapy such as prescribed diet, medication, and exercise for the same period of time. Weight loss was maintained quite well for a year.

New films on weight control.--New studies on weight reduction through diet are being conducted in many places. Dr. Margaret Ohlson of the Michigan State College, has not only conducted studies but has supervised the preparation of a movie with the cooperation of the National Dairy Council--Weight Reducation Through Diet. (National Dairy Council, 111 North Canal Street, Chicago 6, Ill.)

Metropolitan Life has several pamphlets on weight control as well as a new movie, *Losing To Win*. (Metropolitan Life Insurance Co., New York, N. Y.)

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Diet in Disease

Although of course a nutrition specialist should not recommend diets for the relief of abnormal or pathological conditions, she is often asked to help families incorporate such diets into the family meals. She should be up to date on new trends in diet therapy. It is well to have new reference material in your file that can be used with these families.

Diet and cardiovascular disease

Cardiovascular diseases are the major causes of death today. Obesity is a major problem in heart cases and among older age groups in general.

Nutrition in the treatment of cardiac diseases and of overweight persons is considered abnormal nutrition and requires clinical treatment. Because of the vast increase of incidence in our population, nutritionists may be called upon to help these people with these food problems. They need to know about general care, and understand the importance of slowing down and limiting activities. Psychological as well as dietary implications must be considered.

Cholesterol.--One of the normal constituents of the blood of every individual is cholesterol, but it is considered by some physicians to be a causative factor in arteriosclerosis. Evidence for this is not conclusive. Other factors influence whether or not cholesterol is deposited in the walls of the arteries. The amount of cholesterol in the blood stream tends to increase as one grows older. However, present evidence indicates that there is no direct relationship between hardening of arteries and cholesterol in the diet. From fat in the body, cholesterol synthesis may be a more important

factor than foods containing cholesterol. Fat particles in the blood stream increase after a meal that contains large amounts of fat. This increase is more evident in old-age groups, and these particles do not disappear readily from the blood stream.

A low sodium diet is advocated by many physicians for lowering hypertension. The value of the Kempner rice diet may be due to its weight reduction and low sodium properties. Many people think that by leaving salt out of food they have a satisfactory low-sodium diet. A low-sodium diet is more than a low salt diet. The use of baking soda and baking powder, adds sodium to the intake. It is difficult to get a low sodium diet without becoming deficient in essential nutrients. Concentrates of calcium and vitamins may need to be added. Planning Low Sodium Meals is a booklet designed to help persons who suffer from cardiac diseases who are placed on sodium restriction.

References

Planning Low Sodium Meals. Newton Health Department. Newton, Mass. 1951.

The diabetic diet

Diabetes is a common disease in the United States. At least a million persons are known to have the disease. It becomes a frequent problem in the feeding of older people. This means that many housewives have special diets to prepare, and nutrition specialists and home agents are frequently asked to assist in helping to incorporate into the family pattern the diet recommended by the doctor for diabetes. Recently some new material has been released on diabetic diets that is available from the Public Health Service of the Federal Security Agency, Washington 25, D. C., or from the American Diabetes Association, 1 Nevins Street, Brooklyn 17, N. Y.

References

Diabetes Guidebook for the Physician. 79 pp. Printed and distributed for the American Diabetes Association, Inc. By E. R. Squibb & Sons as a service to the medical profession. 1950.

Meal Planning With Exchange Lists To Help You Select Foods for Your Meals. Meal Planning and Diabetes for the Patient. HPI-50-22. 19 pp. illus. Fed. Security Agency; Public Health Service, Washington 25, D. C.

Taking Care of Diabetes. Kit of 11 teaching units. Prepared by the Federal Security Agency, the American Dietetic Association, and the American Diabetes Association. Fed. Security Agency, Public Health Service, Washington 25, D. C.

Diabetic Diet Card for Physicians. Committees of the American Diabetes Association and the American Dietetic Association in cooperation with the Federal Security Agency, Public Health Service. Washington 25, D. C. 3 pages of tables.

Calculation of Diabetic Diets. Report of the Committee on Diabetic Diet Calculations. American Dietetic Association. Compiled by Elizabeth K. Caso. Reprinted from Jour. Am. Dietet. Assoc., vol. 26, no. 8. 575-583. August 1950. (Fed. Security Agency, Public Health Service. Washington 25, D. C.)

Home Production of Food

Canning

Homemakers are interested in short cuts, but to be safe, canning must be based on sound research. Although there is a need for additional research, homemakers should be encouraged to use the best up-to-date methods. In teaching canning, encourage homemakers to:

Select food of high quality:

1. High quality is possible only when food is fresh, at the right stage of maturity, and free from blemishes.
2. Stale, overmature foods would require a different timetable for processing.

Clean food carefully:

1. Wash thoroughly before breaking outer skins of vegetables and fruits. Do not allow them to stand in water.
2. A large amount of contamination may be found on the outside of food. If micro-organism contamination is kept at a low level, food is less likely to spoil.

Work rapidly:

1. Work quickly and prepare small quantities of food at one time. A good recommendation to follow is 2 hours from garden to jar.
2. Delay between preparation and processing may result in changes in food values and flavor and may bring about spoilage.
3. Long standing of a product between precooking and processing may result in much bacterial growth.
4. Flat-sour develops at a temperature of about 150°F. Heavy bacterial growth may not be destroyed by ordinary processing.
5. Food should be allowed to cool normally; 18 to 35 percent of the sterilization value occurs during the cooling period.

Seal jars according to type:

1. Few jars or caps will fail to seal when properly handled.
2. Some sealing failures occur because of irregularities in the top of the jar. However, the flexible lid will usually take care of minor irregularities.
3. The caps with rubber rings must be sealed as each jar is removed from the canner. The two-piece metal cap requires no further tightening.
4. Often the threads on old jars are too near the tops to allow a perfect seal when the two-piece closure is used.
5. When pickles are canned without heat, bands on two-piece metal caps must remain on jars during storage.

Follow recommended principles of processing:

1. The correct temperature and time are important for proper processing. Time varies according to the temperature used. Temperature is influenced by pressure and altitude. About three-fourths of spoilage is due to under-processing--the other one-fourth is due to improper sealing. Check the pressure gage, for accuracy.
2. Emphasize the importance of exhausting the pressure cooker. Unless the cooker is properly exhausted, the temperature will not correspond to the pressure on the gage.
3. Avoid a long lag in reaching processing temperature.

References

How To Preserve Foods. W. Chenoweth. Houghton Mifflin Co., Boston.
1945.

Causes and Prevention of Failures in Home Canning. William B. Esselen,
Jr., and Carl Fellers. Univ. Mass., Amherst. 1950.

Prevent Spoilage and Poor Quality in Home Canned Foods. Bul. C-221.
W. J. Leverenz, Walleowa, Oreg. Reprint 1947.

Freezing

Frozen foods help to provide good diets on a year-round basis. Nutrition surveys show that malnutrition may be caused by lack of food nutrients rather than from insufficient food intake.

H. E. Babcock, a pioneer in food freezing, saw in the freezing process a way of "upgrading" the human diet. He was largely responsible for the development of freezing as a home process. Early

research was concerned with genetic factors, and the effect of climate and soil. It has resulted in the development of varieties especially suited to freezing. Lists of varieties are available at most local experiment stations. Research on varieties is far from complete, however, and many varieties have not been tested for freezing.

Freezer sales have increased over 400 percent in the past 5 years. Three million freezers are now in homes. The demand is for larger freezers. Frozen foods are being used in increasing amounts. Home freezers and locker plants should supplement each other.

Basic principles have been established. Although they do not change, they need frequent repetition, because there continue to be new angles. People are often disappointed that startling things are not shown, but research is slow. Every freezer user becomes a self-appointed expert overnight, but needs guidance if freezer use is to be satisfying.

Scalding is important.--The aim of all food-preservation centers is to control factors that bring about chemical changes. The action of micro-organisms and enzymes must be controlled if frozen-food quality is to be preserved. All research workers agree that scalding of vegetables before freezing is essential to prevent toughness, change in color, off flavors, and loss of nutrients.

A good teaching device is to prepare asparagus both with scalding and without. Examine the results after freezer storage. An amateur can tell the difference.

Ascorbic acid prevents browning.--Many fruits should be protected from browning by the use of antioxidants. Ascorbic acid is used commercially and for home processing. Recent developments include the use of antioxidants for fish, sausage, chicken, and apples for pie.

For home use, commercial mixtures of ascorbic acid and citric acid are less expensive and easier to measure than is pure ascorbic acid. Citric acid used by itself is not so effective as ascorbic acid, and affects the flavor of the fruit. Ascorbic acid improves the flavor of sweet cherries and prevents browning around the stem. Certain varieties of peaches do not require the use of antioxidants if they are sliced directly into sugar sirup and kept submerged with a crumpled piece of freezer paper.

A thawing indicator has been developed that will show whether a food has been thawed and for how long.

Freezing rate as related to quality.--The rate of freezing affects the size of ice crystals but has no significant effect on appearance, flavor, texture, or vitamin content of beef. Studies at Cornell University indicated no significant difference in the results in spinach, corn, and lima beans frozen instantly or within 72 hours. Strawberries, raspberries, and sliced peaches packed in sirup showed

few differences in vitamin content, appearance, flavor, or texture because of the freezing rate. The freezing rate did make some difference in asparagus.

Emphasis for the homemaker should be on quick-cooling. Cooling of all products before packaging is important, as is quick cooling in the freezer to 32°F. Therefore, do not overload the freezer with foods to be frozen. Place foods in the freezer so that they touch a freezing surface; leave air space between the package. Learn the limitations of the freezer.

Freezing cooked foods.--The homemaker has a good chance of success in freezing prepared foods because she can control every step. Freezing of precooked foods should be planned. A freezer is no place for dabs of left-overs. A solid pack is better than a dry pack. Baked foods are short-time storage foods.

Research has shown how to prevent the separation of sauces and gravies by saving back part of the starch used for thickening and adding it just before freezing. The raw starch cooks as the product is reheated. The proportion of fat to liquid is important--1 tablespoon of fat to 1 cup of liquid is the best proportion.

References

Home Freezing of Fruits and Vegetables. U. S. Dept. Agr. Home and Garden Bul. No. 10. 48 pp. illus. Washington 25, D. C. July 1951.

Principles of Food Freezing. W. A. Gortner, F. S. Erdman, and N. K. Masterman. John Wiley & Sons, Inc., New York, N. Y. 1948.

Into the Freezer--and Out. D. K. Tressler, C. F. Evers, and L. Long. Avi Publishing Co., Inc. New York, N. Y. 1946.

Procedures for Home Freezing of Vegetables, Fruits, and Prepared Foods. E. H. Dawson, G. L. Gilpin, and H. Reynolds. U. S. Dept. Agr. Handbook No. 2. September 1950.

The food dollar

Spending a large amount for food is no guarantee that the family will be well nourished. Wise planning is the surest means of meeting the family's food needs. The food money can be made to go further by giving attention to: What to buy, Where to buy, When to buy, How to buy.

The objectives are to help the family understand and apply good buymanship principles in obtaining food to:

1. Provide essential foods for the family.
2. Get the most possible food value for money spent.
3. Conserve time and money for other family activities.

Points to consider before buying:

1. Consider the advantages of home production and preservation of the food supply.

The relation of home food production to dietary adequacy has been shown again and again. In a study in Groton Township, New York, the nutritive value of family diets increased markedly as the dollar-value of home-produced food increased, whether or not family income increased at the same time.

In a study made in Georgia many diets were found to be low in vitamin A. This was probably associated with the season of the study--summer, a poor time for sweetpotatoes and leafy greens in this area. Sixteen percent of the families in the Georgia county consumed no milk during the week of the study, and only half of the families had home-produced milk. No wonder then that calcium was one of the nutrients short in many of the diets.

Among Minnesota farm families the quality of diet was directly related to the value of food they had raised in 1949. Of those who raised over \$200 worth of food the proportion whose diets provided recommended amounts of calcium, vitamin A, and ascorbic acid was about half again as high as among those with home-produced food valued at less than \$100. The average expense for food of these two groups was the same.

In the southern cooperative study mentioned earlier (page 45) home-produced foods furnished substantial amounts of each nutrient, but were especially important for calcium, vitamin A, riboflavin, and ascorbic acid. The data suggested, for example, that when farm families did not produce milk they used very little. Over 40 percent of the families in the cotton and tobacco areas used none or less than one cup a day per person. It was found that not until consumption of milk averaged a pint a day per person did the majority of family diets provide recommended amounts of calcium.

In the cotton and tobacco areas, the value of home-produced foods varied more with tenure than did expenditures for purchased food. Both white owners and share croppers spent about the same amount for purchased food, but the owners had more than twice as much home-produced food in terms of money value as did the share croppers. This enabled the owners to have better diets.

2. Consider the family income. Income helps to determine the type of diet.

A low-cost plan relies heavily on the cheaper foods--potatoes, dry beans and peas, flour, and cereals. It relies also upon selection of the cheaper foods within the groups, such as the less expensive cuts of meat and the lower priced vegetables and fruits.

A moderate-cost plan allows for larger quantities from the more expensive foods such as meat and eggs. It allows also for some of the higher priced cuts of meat, and a few out of season foods.

3. Plan meals in advance; know what foods are on hand; consider the nutritional needs of the family; make out a market list; look for new menu ideas.

4. Know the situation regarding abundant foods and other market information; newspapers, TV, and radio.

5. Know what to look for when you buy and how to recognize quality. Be familiar with labels, grades, size of containers, and the grade best suited for use. Make notes on satisfactory and unsatisfactory brands. Consider the nutritional value obtained for the money.

6. Take advantage of sales and special offers. Buy staples in quantity if you have suitable storage.

7. Consider the market:

- (a) Distance
- (c) Quality of food
- (b) Sanitation
- (d) Overhead

Points to consider when buying:

- 1. Have a complete market list, but keep it flexible.
- 2. Buy foods in season.
- 3. Select your own fruits and vegetables. Be considerate of others--don't bruise or damage produce.
- 4. Note the net weight of canned goods and compare unit prices.
- 5. Read labels. Buy according to use.
- 6. Avoid shopping during rush hours.
- 7. Know the price before you buy.
- 8. Watch scales and the prices rung up at cash register.
- 9. Watch for specials.
- 10. Avoid paying for fancy packaging.
- 11. Buy the essential foods first, then get the extras.

Conserve what you buy:

1. Use your refrigerator, home freezer, or frozen-food locker to advantage.
2. Store every food in its proper place.
3. Avoid waste in preparing foods.
4. Prepare foods to save nutrients.
5. Have "planned-overs" not left-overs.
6. Prepare the quantity of food needed by the family--avoid left-over wastes.
7. Use tested recipes to avoid waste.
8. Serve food attractively, so that it will be eaten.

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Food for Families With School Children. AIS-71. U. S. Dept. Agr. Washington 25, D. C.

Money Management--Your Food Dollar. Household Finance Corp., 919 North Michigan Avenue. Chicago, Ill.

Family Fare. U. S. Dept. Agr. Home and Garden Bul. No. 1. Washington 25, D. C.

A Fruit and Vegetable Buying Guide for Consumers. Misc. Pub. 167. U. S. Dep t. Agr. Washington 25, D. C.

Produce Manual. Fruit Dispatch Co., Equipment Dept. 27, Pier 3, North River, New York, N. Y.

Variety Meats. National Livestock and Meat Board, 407 South Dearborn St., Chicago 3, Ill.

Focus on the Food Markets. (weekly publication). N. Y. Ext. Serv. Food Marketing Program, 749 Church St., New York 1, N. Y.

Food Marketing Bulletin (weekly publication). Misc. Leaflet. Food Planning Buying and Storing leaflet. New England Extension Education Program in marketing information, 408 Atlantic Avenue, Boston 10, Mass.

Read the Label on Foods, Drugs, Devices, Cosmetics. Misc. Pub. 3. Fed. Security Agency. Washington 25, D. C.

Time Management in Grocery Shopping. Kitchen Reporter. June 1951.

Tips and Topics on Retailer and Consumer Education in Food Marketing. U. S. Dept. Agr. Ext. Serv., Washington 25, D. C.

LET'S KEEP UP-TO-DATE IN OUR READING

Do the agents ask "How can we keep up to date in foods and nutrition?" The following list gives some sources that help you to keep up to date.

Periodicals

Periodicals available without cost:

Dairy Council Digests, National Dairy Council, 111 North Canal Street, Chicago 6, Ill.

Nutrition News. National Dairy Council, 111 North Canal Street, Chicago 6, Ill.

Current Research in Nutrition. Nutrition Foundation, Inc., Chrysler Building, New York 17, N. Y.

Nutritional Observatory. Heinz Nutrition Research Division, Mellon Institute, Pittsburgh 13, Pa.

Bordens Review of Nutrition Research. Borden Company, 350 Madison Avenue, New York 17, N. Y.

Food and Nutrition News. National Livestock and Meat Board, 407 South Dearborn Street, Chicago 6, Ill.

Kitchen Reporter. Kelvinator Kitchen, Detroit, Mich.

Periodicals on foods and nutrition

Nutrition Reviews. The Nutrition Foundation, Inc., Chrysler Building, New York, N. Y.

Journal of the American Dietetic Association. The American Dietetic Association, 620 North Michigan Avenue, Chicago 11, Ill.

Journal of Home Economics. American Home Economics Association, Washington, D. C.

Food Research. Garard Press, 119 West Park Avenue, Champaign, Ill.

What's New in Home Economics. Harvey and Howe, Inc., 919 North Michigan Avenue, Chicago 11, Ill.

Forecast of Home Economists. The Forecast Publishing Co., 6 East 39th Street, New York 16, N. Y.

Food Field Reporter. Topics Publishing Co., Inc., 330 West 42d Street, New York 18, N. Y.

Government Publications

Publications of the:

U. S. Department of Agriculture, Washington 25, D.C.
Federal Security Agency, Washington 25, D. C.
State Experiment Stations.

Books

Books helpful in nutrition

Food and Health. H. C. Sherman. 290 pp. The Macmillan Co., New York, N. Y. 1947. rev. ed.

Nutrition in Public Health. Lucy H. Gillett. 303 pp. W. B. Saunders Co., Philadelphia, Pa. 1946.

Handbook of Nutrition: A Symposium. American Medical Association. 586 pp. Chicago, Ill. 1951 rev. ed.

Infant Nutrition. P. C. Jeans and W. M. Marriott. 516 pp. C. V. Mosby Co., St. Louis, Mo. 1947.

Calcium and Phosphorus in Foods and Nutrition. H. C. Sherman. 176 pp. Columbia University Press, New York, N. Y. 1947.

Nutrition and Diet in Health and Disease. James S. McLester. Ed. 5. 800 pp. W. B. Saunders Co., Philadelphia, Pa. 1949.

Essentials of Nutrition. H. C. Sherman and C. S. Lanford. Ed. 3. 454 pp. The Macmillan Co., New York, N. Y. 1951.

The Nutritional Improvement of Life. H. C. Sherman. 270 pp. Columbia University Press, New York, N. Y. 1950.

Nutrition and Physical Fitness. Jean L. Bogert. 610 pp. W. B. Saunders Co., Philadelphia, Pa. 1950.

Nutrition. Margaret S. Chaney and Margaret Ahlbom. Ed. 4. 448 pp. Houghton Mifflin Co., Boston, Mass. 1949.

Books on food preparation

Experimental Cookery. Belle Lowe. 611 pp. Ed. 3. John Wiley & Sons, Inc., New York, N. Y. 1943.

Hows and Whys of Cooking. Evelyn G. Halliday and Isabel Noble. Ed. 3. 328 pp. University of Chicago Press, Chicago, Ill. 1946 rev.

Basic Cookbook. Marjorie Heseltine and Ula Dow. 740 pp. Houghton Mifflin Co., Boston, Mass. 1947.

Books for teaching

How to Teach Nutrition to Children. Mary Pfaffman. 224 pp. Barrows, New York, N. Y. 1944.

Publications of the Nutrition Foundation. The Nutrition Foundation, Inc., Chrysler Building, New York 17, N. Y. (undated).

Goals for Nutrition Education for Elementary and Secondary Schools.

Activities - In Nutrition Education for Kindergarten Through Sixth Grade. 44 pp.

Activities - In Nutrition Education - A unit for high school classes. 92 pp.

Teaching Aids for Biology. 15 pp. (mimeo.)

Teaching Better Nutrition. J. A. S. Ritchie. Nutrition Series No. 6, F. A. O., 1201 Connecticut Avenue, NW., Washington, D. C.

Books useful for surveys

Recommended Dietary Allowances. National Research Council Reprint and Circular Series No. 129. 31 pp. Washington, D. C. October 1948 rev.

The Problem of Changing Food Habits. No. 108. 177 pp. National Research Council, Washington, D. C. October 1943.

Nutrition Surveys: Their Techniques and Value. No. 117. 114 pp. National Research Council, Washington, D. C. May 1949.

Survey of Food and Nutrition Research in the United States. 311 pp. National Research Council, Washington, D. C. June 1950.

Composition of Food. Agr. Handbook No. 8. 147 pp. U. S. Dept. Agr., Washington 25, D. C. 1950.

Films

An Index and Guide to Free Educational and Classroom Films from Industry. 16 mm. Distributed by Modern Talking Picture Service, 45 Rockefeller Plaza, New York 20, N. Y. 1951-52 ed.

Approved Films on Food and Nutrition. Supplement to 1948 catalog. Prepared by the Committee on Film Evaluation, Food and Nutrition Division, Health Council of Greater New York, 257 Fourth Avenue, New York 10, N. Y. September 1951.

A Few Selected Films on Nutrition. Compiled by Adelia M. Beeuwkes and Ford L. Lemler. Univ. Mich., Ann Arbor, Mich. July 1949, rev.

Film Bibliography to Aid a Program in Nutrition Education. Junior and Senior High Schools, Grades 7-12. Compiled by Elizabeth A. Lockwood. (Also Film Bibliographies for Elementary Grades, and Goals for Nutrition Education for Elementary and Secondary Schools). Harvard School of Public Health, 695 Huntington Avenue, Boston 15, Mass.

